SANYO
TITLE
POSITION
MODE
RESUME
Q.PICCUTE
ENTER
RETURN
MENU
ZOOM
IN
OUT
VOL.
MUTE/
DISP.OFF
PBC/
DUAL MAP
VIEW
PAGE
REW
FF

MP3

SANYO MOBILE AUDIO
MODEL NV-E7000 LIMITED WARRANTY

OBLIGATIONS

In order to obtain warranty service, the product must be delivered to and picked up from an Authorized Sanyo Factory Service Center at the user's expense, unless specifically stated otherwise in this warranty. The names and addresses of Authorized Sanyo Service Centers may be obtained by calling the toll-free number listed below.

For product operation, authorized service center referral, service assistance or problem resolution, call

CUSTOMER INFORMATION 1-800-421-5013
Weekdays 8:00 AM - 5:00 PM Pacific Time

For accessories and/or parts not available from an authorized dealer, call

PARTS ORDER INFORMATION 1-800-726-9662
Weekdays 8:00 AM - 5:00 PM Pacific Time

This warranty is valid only on SANYO products purchased and used in the united states of america, excluding all U.S. Territories and protectorates. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL RETAIL USER, AND DOES NOT APPLY TO PRODUCTS USED FOR ANY INDUSTRIAL, PROFESSIONAL OR COMMERCIAL PURPOSE. THE ORIGINAL DATED BILL OF SALE OR SALES SLIP MUST BE SUBMITTED TO THE AUTHORIZED SANYO SERVICE CENTER AT THE TIME WARRANTY SERVICE IS REQUESTED.

Subject to the OBLIGATIONS above and EXCLUSIONS below, SANYO FISHER COMPANY (SFC) warrants this SANYO product against defects in materials and workmanship for the periods specified below. SFC will repair or replace (at its option) the product and any of its parts which fail to conform to this warranty. The warranty period commences on the date the product was first purchased at retail.

LABOR	PARTS
1 YEAR	1 YEAR

EXCLUSIONS

This warranty does not cover (A) the adjustment of customer-operated controls as explained in the appropriate model's instruction manual, or (B) the repair of any product whose serial number has been altered, defaced or removed.
This warranty shall not apply to the cabinet or cosmetic parts, knobs or routine maintenance.
This warranty does not apply to uncrating, setup, installation, removal of the product for repair or reinstallation of the product after repair.
This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of SFC including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage, fire, flood or other Acts of God, or normal wear and tear.
The foregoing is in lieu of all other expressed warranties and SFC does not assume or authorize any party to assume for it any other obligation or liability.
THE DURATION OF ANY WARRANTIES WHICH MAY BE IMPLIED BY LAW (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS) IS LIMITED TO THE TERM OF THIS WARRANTY. IN NO EVENT SHALL SFC BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE PERFORMANCE OF ITS OBLIGATIONS UNDER THIS WARRANTY DUE TO CAUSES BEYOND ITS CONTROL.
SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.
THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

For your protection in the event of theft or loss of this product, please fill in the information below for your own personal records.

Model No. _____ Serial No. _____
(Located on back or bottom side of unit)

Date of Purchase _____ Purchase Price _____

Where Purchased _____

THE SANYO COMFORT WARRANTY
AUDIO/VIDEO PRODUCTS

WARRANTY APPLICATION

New, unused Sanyo Audio/Video products purchased through a Sanyo authorized dealer in Canada are warranted against manufacturing defects in materials and workmanship for **ONE YEAR** from the date of purchase by the original retail purchaser.
This warranty only applies in favor of the original retail purchaser of the warranted product.

SANYO CANADA INC.'S RESPONSIBILITY

During the warranty period, SANYO Canada Inc. will repair, or at our option, replace an Audio/Video product which shows evidence of a manufacturing defect in materials or workmanship. Replacement PARTS are warranted for the remaining portion of the warranty period.

WHAT IS NOT COVERED

(a) Products purchased outside Canada.
(b) Products purchased in a used condition.
(c) Problems due to product set-up and installation.
(d) Adjustments that are outlined in the Operating Manual.
(e) Accessory items including antenna, batteries, cassette tapes, cables, etc.
(f) Damage in or due to transportation.
(g) Damage due to improper maintenance, improper wiring, accident, abuse, misuse or negligence.
(h) Damage caused by lightning and power surges.

ORIGINAL RETAIL PURCHASER'S RESPONSIBILITY

You, the original retail purchaser, must present your original, dated bill-of-sale together with this warranty to SANYO Canada Inc. or to an authorized Sanyo Service Depot when you make a claim under this Warranty.

You, the original retail purchaser, are responsible for any costs of TRANSPORTING the product to and from SANYO Canada Inc. or an authorized Sanyo Service Depot. You also are responsible for the cost of any MAINTENANCE necessary in respect of the product.

WARRANTY BECOMES VOID

This warranty becomes void if the product's serial numbers are altered or removed or if any repair to the product is made other than by SANYO Canada Inc. or by an authorized Sanyo Service Depot.

LIMITATIONS

(a) SANYO Canada Inc. reserves the right to change or improve the design of the model of the product warranted hereunder without incurring any obligation to make any modifications to or to install any improvement in or on the product.
(b) In no event shall SANYO Canada Inc. or any of its Authorized Dealers be liable for special or consequential damage arising from the use of this product.

STATUTORY WARRANTIES

The above provisions do not preclude the operation of any applicable provincial statute which in certain circumstances may not allow some of the limitations and exclusions described in this Warranty. Where any terms of this Warranty are prohibited by such a statute, they shall be deemed null and void but the remainder of this warranty shall remain in effect.

HOW TO OBTAIN WARRANTY SERVICE

Please contact the Sanyo Authorized Dealer from whom the product was purchased, or contact us directly at:

SANYO Canada Inc.
1-300 Applewood Cres.
Concord, Ont. L4K 5C7
(905) 760-9944
1-800-263-2244

http://www.sanyocanada.com

(R12)

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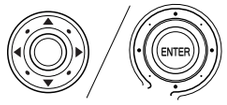
TIPS ON HOW TO READ THIS MANUAL

This manual uses the following marks to call the user's attention. The meaning of each mark is provided below. Please make sure you understand these prior to reading the manual.

Advise	Follow this advice to ensure proper functioning of your vehicle and the unit. Not doing so may result in damage to your vehicle or the unit or result in a decreased level of performance.
Hint	Keep this hint in mind when using the unit. It may be useful later on to help you operate it skillfully.
☞	Indicates title names and page numbers for easy reference.
MENU	Displays the buttons on the remote control and on the unit itself.
Route search	Displays the menus (items) appearing on the screen.
	Moves the Joystick vertically and laterally and shows operation in 8 different directions.
:	Describes operation results.
<	This symbol denotes that the operation procedures are divided at the next step.

CAUTIONARY ITEMS FOR PROPER USE

- **Operating the portable DVD navigation unit**
  - Avoid operating the unit while driving. First stop the vehicle and then proceed.
  - While driving, keep your gaze on the unit's screen to a bare minimum (under 1 second).
- **Installing the portable DVD navigation unit**
  - Install the unit on the upper part of the center panel in a way so as not to obstruct your view of the road.
  - Install it properly as per the instructions appearing in this manual. (The unit is designed to render complex imaging such as videos impossible while driving. Do not under any circumstance reconfigure the wiring or perform any improper conversions to the unit.)

■ The meaning of the symbols (DVD CD appearing in this manual are as follows.

DVD · · · DVD video function

CD · · · Music CD function

■ This unit utilizes the following 3 technologies to playback DVD videos:

Macrovision
This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Dolby Digital
Manufactured under license from Dolby Laboratories.
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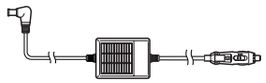
"DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

INSTALLATION MANUAL

ACCESSORIES

Please contact your place of purchase if you have any questions about installation or connection.

12V cigarette lighter connector cable



1 cable

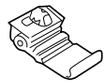
AC/DC adapter

1 cable

Parking brake connector cable

2 cables

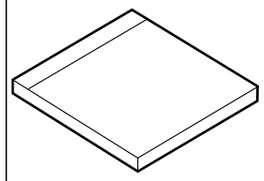
Self-lock connector



2 clips

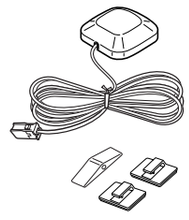
Remote control and holder

Map DVD-ROM



1 disc

GPS Exterior Antenna and Installation Parts



1 core

HOW TO INSTALL THE UNIT (1)

PREPARATIONS PRIOR TO INSTALLATION

- The initial adhesive strength of the double-surface adhesive tape is reduced when the temperature is low (20°C (68°F) or less). Turn on the heater and heat the vehicle up prior to adhering onto the mounting surface.
- **Make sure to use the cleaner included with the kit to clean the mounting surface of any dirt and let the surface dry before adhering the stand base. The dashboard may have been coated with a wax surface protective agent that is hard to see with the naked eye. This wax significantly weakens the double-surface adhesive tape and may cause the unit to fall.**
- **The double-surface tape adhering the stand base can only be stuck onto the surface once and cannot be peeled off and re-adhered.**

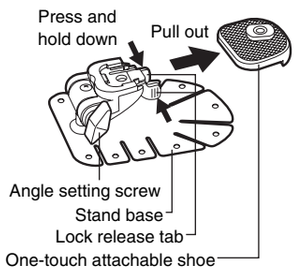
1 Stand assembly

There are two ways to assemble the stand: with or without the portable DVD navigation unit mounting stay. Select the assembly method that best suits your vehicle.

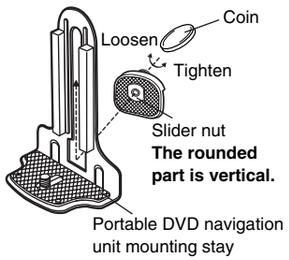
① Method using the portable DVD navigation unit mounting stay

- The back/forth left/right angles and the vertical positioning are adjustable.

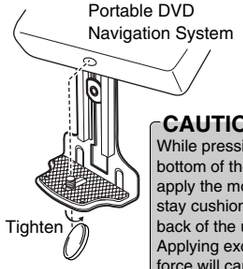
1. Push the lock release tab and remove the one-touch attachable shoe.



2. Loosen the screw, slide the slider nut through the center groove of the portable DVD navigation unit mounting stay and tighten the screw.

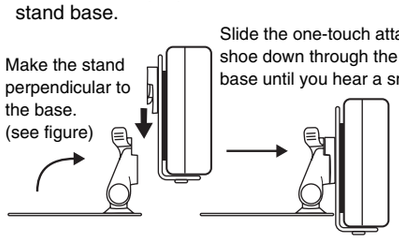


3. Install the portable DVD navigation unit mounting stay onto the unit.



CAUTION
While pressing the bottom of the unit, apply the mounting stay cushion onto the back of the unit. Applying excessive force will cause the disc insert slit cover to warp which will make it strike the disc.

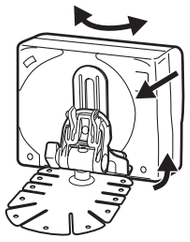
4. Mount the unit prepared as described in **3** onto the stand base.


Make the stand perpendicular to the base. (see figure)
Slide the one-touch attachable shoe down through the stand base until you hear a snap.

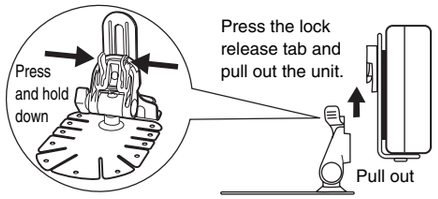
- **Adjust the angle.**

Loosen the angle setting screw and adjust the back/forth left/right angles.

After adjustment, fasten the screw.

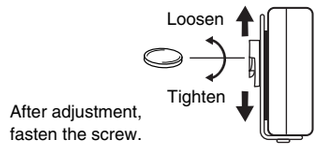


- **Removing the portable DVD navigation unit from the stand base**



- **Adjust the vertical position**

Remove the unit from the stand base and adjust the position of the one-touch attachable shoe.

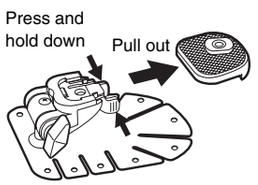


CAUTION Disc replacement is impossible once the unit has been mounted onto the stay. Replace the disc after removing the unit from the mounting stay.

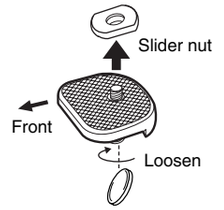
② How to mount directly onto the stand base

- The back/forth left/right angles are adjustable.

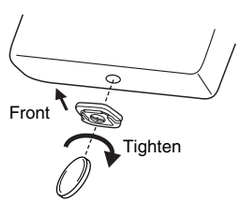
1. Push the lock release tab and remove the one-touch attachable shoe.



2. Remove the slider nut from the one-touch attachable shoe.

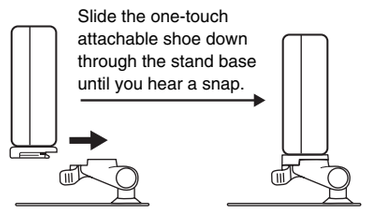


3. Install the one-touch attachable shoe onto the unit.

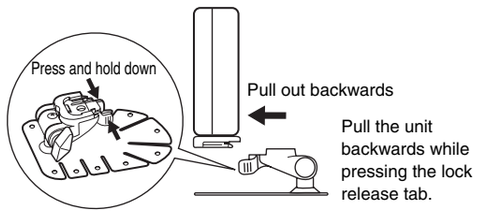


NOTE Keep the removed slider nut in a safe place.
It will be necessary when using the portable DVD navigation unit mounting stay.

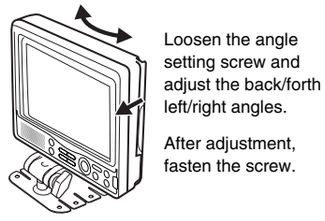
4. Mount the unit prepared as described in **3** onto the stand base.



- **Remove the unit from the stand base.**



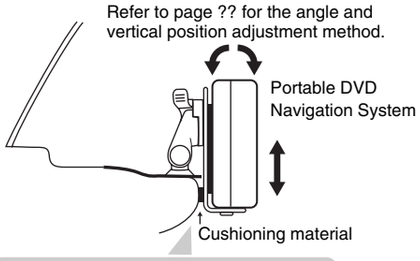
- **Adjust the angle.**



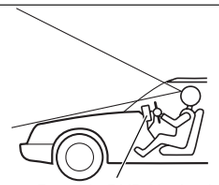
HOW TO INSTALL THE UNIT (2)

2 Determine the installation position

Determine a position for mounting the unit onto the dashboard that renders it easy to view. Bend and flex the adhesive surface of the stand base to correspond to the curves of the dashboard.


Refer to page ?? for the angle and vertical position adjustment method.
Portable DVD Navigation System
Cushioning material

Fix the cushion included with the unit where the unit mounting stay and the dashboard come into contact.
(Example: when using the mounting stay)

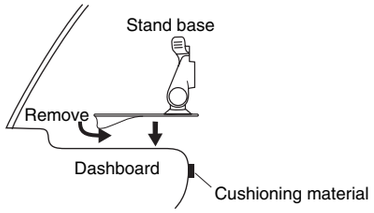


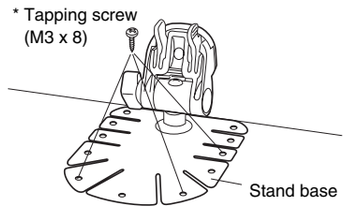
⚠ WARNING

Look from the driver's seat and verify that the unit is not obstructing the view of the road. Change the mounting area should the unit block the view.

3 Install the stand

Remove the unit from the stand base once, remove the blue sheet from the back of the stand base, place the stand onto the desired mounting area (dashboard) and apply pressure.





* Depending on the shape/material of the dashboard, the double-surface adhesive tape alone may not have sufficient adhesive strength. Use the tapping screws included with the unit (4 screws) and securely anchor the unit.
(*In such a case, holes must be made into the dashboard. Exercise caution.)

4 Mounting the portable DVD navigation unit

*** Tightly fasten the affixing screws for each part of the stand. Not tightening enough may cause the unit to change the installation angle or fall over due to the vehicle's vibrations.**

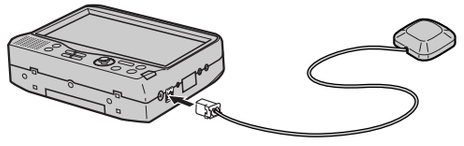
NOTE	**After having adhered the stand base, remove the portable DVD navigation unit and leave the stand base as is for at least 24 hours. Immediately after adhering to the surface, the adhesion strength may be too weak to ensure a firm hold.**

GPS EXTERIOR ANTENNA INSTALLATION METHOD (1)

1 Connect the antenna to the portable DVD navigation unit

The GPS exterior antenna must be connected in order to use the unit as a navigator. Not doing so will render present geographic location determination impossible.

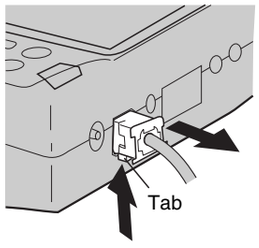
INSTALLATION METHOD



To the GPS exterior antenna terminal

REMOVAL METHOD

Press the tab and remove.



2 Installing onto the exterior chassis (see 15 page)

Installing the antenna in the vehicle interior may render proper electromagnetic wave reception impossible.
It is preferable to install it onto the exterior chassis.

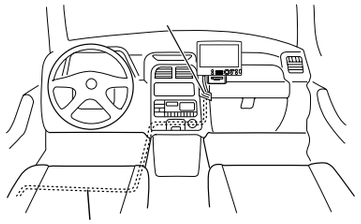
Install horizontally onto an area that will ensure that the chassis will not obstruct electromagnetic wave reception (vehicle exterior or the front of the dashboard.)

* To ensure a firm installation, make sure to mount on a flat surface of the chassis.

INSTALLATION EXAMPLE

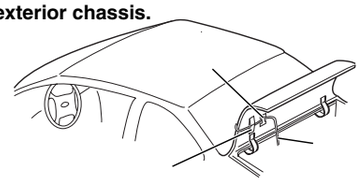
If taking the antenna outside from the driver's seat

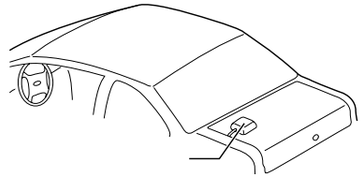
- **Pull the wire through the vehicle interior and take it out from the driver's seat.**
- **Affix cord clips if necessary.**
- **Install the GPS exterior antenna horizontally onto a flat metal surface of the vehicle's exterior chassis.**



Taking the antenna out from the trunk

- **Pull the wire through the vehicle interior and take it out through the trunk.**
- **Pass the antenna cord through the waterproof packing and adhere it in an area where it is in contact with the vehicle's waterproof rubber.**
- **Affix cord clips if necessary.**
- **Install the GPS exterior antenna horizontally onto a flat metal surface of the vehicle's exterior chassis.**





INTRODUCTION

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SAFETY PRECAUTIONS (1)

- To ensure proper usage of the unit, read this instruction manual prior to use.
- After having read it, keep in a safe place for quick reference.

Indications appearing both in this manual as well as on the unit itself contain cautionary items to ensure that the unit is used safely in order to prevent the operator or others nearby from being harmed or injured.

⚠WARNING: The message following this symbol involves the likely possibility of serious injury or even loss of life.

⚠CAUTION: The message following this symbol involves the possibility of injury or material damage.

The content of warning messages may also depicted as illustrations.

: ⃠This symbol is to prohibit certain actions by the operator. The following illustration will contain a specific warning message (the figure on the left prohibits dismantle).

: ●This symbol is to indicate certain actions for the operator. The following illustration will contain a specific message (the figure on the left is a common example).

⚠ WARNING

Do not use the unit as a maritime or aviation navigation system or as a map for mounting climbing.

Use only the specified power source (shown on the right). Do not use with a 24V vehicle battery (truck, bus).
This may cause fires or electric shocks.

12V vehicle battery

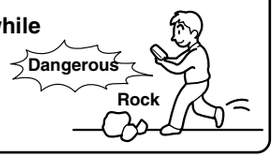
120V AC power source

Use only the specified power cord (shown on the right). Do not remodel or reconstruct the cord
This causes fires.

Included 12V automobile cigarette lighter connection cable

Included AC/DC adaptor

Do not view the navigation maps, DVDs or videos while walking.
Use the unit only when standing still in a safe place.
Not doing so may cause accidents or injury.



⚠ WARNING

Do not place or install the unit in an area that would hinder the view of the road, obstruct driving operations (such as steering, shifting or breaking), pose a danger to passengers or obstruct the deployment of the airbag system. Otherwise, traffic accidents or injury may result.

If using the unit as an automobile navigator, use the included installation kit and securely affix the unit.
Otherwise, traffic accidents or injury may result.

Included installation kit

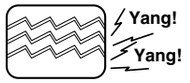
Do not operate the unit or replace discs while driving.
Do so only after having stopped the vehicle in a safe place.
Otherwise, traffic accidents may result.

Do not use headphones while driving.
Traffic accidents may result.

Do not dismantle or remodel the unit.
Accidents, fires or electric shocks may result.

Do not dismantle

Do not use the unit if malfunctions occur such as if no image is displayed or if no sound is emitted.
Accidents, fires or electric shocks may result.



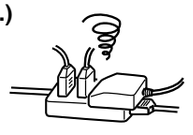
In the event of foreign object infiltration into the unit, water or beverage splashing onto the unit, smoke or a strange smell coming from the unit or other abnormality, immediately stop using the unit and consult the place of purchase. Using the unit after such occurrences may cause accidents, fires or electric shocks.

Exercise caution so as to not let the unit get wet nor let water infiltrate into the unit (especially when using during rain, snowfalls, near the coastline or near a body of water). Fires or electric shocks may result.

Do not touch the antenna or the power supply plugs when lightning is heard. However, when lightning is heard from afar, immediately unplug the AC/DC adaptor to avoid being struck by lightning. (If using outdoors, immediately retract the antenna and stop using the unit.)
Fires or electric shocks may result.

Do not touch

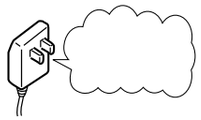
Do not use a multi-connection plug.
Fires or overheating may result.



SAFETY PRECAUTIONS (2)

⚠ WARNING

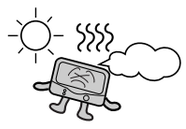
Make sure that there is no dust adhering to the metal contacts of the AC/DC adaptor. Dust or metal touching the contacts may result in fires or electric shocks.



Do not damage, bend excessively, twist, pull or place heavy weights on the AC/DC adaptor cord.
Should the cord get damaged (core wire exposed, cut, etc.) request a replacement at the place of purchase. Using as is may result in fires or electric shocks.

⚠ CAUTION

Do not use the unit in areas of high temperatures for an extended period (direct sunlight, in a vehicle under a hot sun, etc.) and do not leave the unit in such areas.
Burns or fires may result.



Do not place or install the unit in areas where rain is blown in by the wind or in areas prone to water splashes, humidity or dust. Water, humidity or dust infiltrating the unit may result in smoke emissions or fires.

Do not place the unit in areas where it may be exposed to oil, smoke or water vapor such as near a kitchen counter or a humidifier. Fires or electric shocks may result.

Do not place the unit on unsteady or inclined surfaces.
It may fall resulting in injury.

Do not use the unit if it is covered by a cloth sheet or blanket. Fires may result.

Enjoy watching the unit at a suitable sound level.
High volumes may damage your hearing and, because exterior sounds become muffled, traffic accidents may result.

If the unit's power supply is the vehicle battery, do not leave the vehicle engine turned off for extended period while operating the unit.
The vehicle battery may weaken and die out.

⚠ CAUTION

While driving, adjust the volume of the unit so that exterior sounds can be heard well. Driving without being able to hear exterior sounds may lead to traffic accidents.

Should the instructions provided by the navigation unit differ from the actual traffic conditions, proceed to drive in accordance with the actual traffic conditions.
Accidents may result.

Do not place the AC/DC adaptor cord near a heater.
The cord's plastic sheath may melt and result in fires or electric shocks.

When unplugging the AC/DC adaptor cord, do so by pulling on the plug itself, not the cord.
Pulling on the cord may result in damage to the cord and lead to fires or electric shocks.

Do not handle the AC/DC adaptor cord with wet hands.
Electric shocks may result.

Pull out the plug

When cleaning the plug or when not using the unit for an extended period, disconnect the AC/DC adaptor from the power supply for safety.
Electric shocks or fires may result.

Do not place the plug on the floor with the metal contacts facing upward.
Stepping on it in this condition may cause injury.

Do not look directly at the laser light source.
Doing so may cause eye damage.

Do not press on the liquid crystal panel with excessive force or expose it to impacts.
The liquid crystal panel glass may crack resulting in injury.

Should the liquid crystal panel crack, do not come into contact with the liquid coming from the interior of the panel. This may lead to inflammation of the skin.

- Should the liquid be accidentally ingested, see a doctor immediately.
- Should the liquid get into the eyes or onto the skin, wash out with a large amount of water and see a doctor immediately.

SAFETY PRECAUTIONS (3)

⚠ CAUTION

For safety, adhere the stand base onto a surface that would enable secure anchoring. Depending on the dashboard material (PP: polypropylene or other), the double-surface adhesive tape alone may not be strong enough to affix the unit. Use the tapping screws included with the unit (4 screws) to securely anchor it.

* For such a case, holes need to be made into the dashboard. Proceed with caution.
(*In case of a prominent curved surface, the adhesive area is reduced resulting in unsteady mounting. The unit may not be mountable onto such a surface.)

For vehicles equipped with airbags (SRS Dual Airbag, SRS Side Airbag, SRS Curtain Airbag, etc.), do not under any circumstance install the unit in a way that obstructs the airbag cover or would hinder its proper operation. Do not wire the antenna cord in such an area.
In the event the airbag is to be deployed, it may not function correctly.
(*Decide on the unit's mounting position after thoughtful consideration for safety and consultation with the place of purchase.)

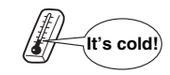
If the surface on which the unit is to be adhered is not plastic (leather, wood, upholstery, etc.), the surface finish may become damaged rendering installation using adhesives impossible.

Should the stand base adhesive get torn off the dashboard, slowly and carefully peel it off the surface.
Because strong adhesive tape is used, peeling off with excessive force may damage the dashboard surface finish.

CAUTIONARY ITEMS FOR PROPER USAGE (1)

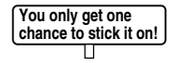
WHEN INSTALLING THE UNIT

- The adhesive strength of the double-surface tape decreases at low temperatures (20°C (68°F) or less). Adhere the unit onto the dashboard after having increased the temperature using the vehicle heater.



- Adhere the unit after having cleaned off any dirt from the mounting surface using the cleaning solution included with the unit and let dry.

- **Once the double-surface adhesive tape is peeled off, it cannot be re-adhered.**



- After installation, periodically check if the tape is still holding well.

- Tightly fasten the screws affixing each part of the stand.

- **Do not mount the portable DVD navigation unit immediately after having adhered the stand base to the mounting surface. Leave the stand base as is without the unit mounted for at least 24 hours after adhering it to the dashboard.**

- Apply pressure onto the mounting surface by pressing on the stand base after having adhered it to the dashboard.

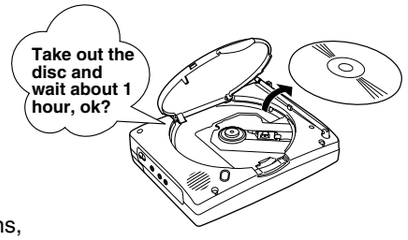
- The cushion included with the unit is used to keep the unit from vibrating. Install it as per the instructions in the manual.

ABOUT THE TEMPERATURE

- The unit may not function properly in extreme cold or extreme hot conditions. Bring the ambient temperature back to normal to ensure proper operation.
- Do not leave the unit in areas of high temperatures (direct sunlight or in a vehicle under the hot sun) or low temperatures (outdoors in cold weather). Damage and deformation may result.
- When the temperature exceeds 50°C (122°F), the unit automatically cuts off the power supply to prevent damage to the liquid crystal display. After having returned to the standard usage temperature range (0°C (32°F) to 50°C (122°F) when in NAVI/VIDEO mode), turn on the power supply and normal operation will be possible.

CAUTIONARY ITEMS FOR PROPER USAGE (2)

ABOUT CONDENSATION



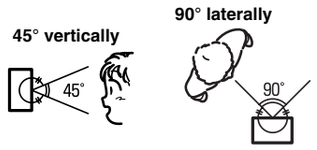
During raining days, when the humidity level is high or immediately after having turned on the heater in cold temperatures, condensation (water drops) may form on the optical lens inside the unit. Using the unit in this condition may result in laser malfunction rendering normal operation impossible. Results may depend on the ambient environmental conditions, however, the condensation will evaporate and normal operation will be possible after removing the disc and leaving the unit unused for roughly 1 hour.

ABOUT VIBRATIONS

Exposing the unit to vibrations may result in the following conditions:

- DVD video/CD/JPEG imaging: Sound and image disturbance, however, both return to normal when vibrations cease.
- Map disc: Rarely affected by vibrations, however, on rare occasions, symptoms such as the map disappearing from the screen may occur. Operation returns to normal when vibrations cease.

ABOUT THE DISPLAY



- Direct sunlight will cause the display to blacken due to reflection of the sunrays. Avoid direct sunlight.
- The display is best viewed from directly in front of the unit. Watch the screen within a 45° angle vertically and a 90° angle laterally from the unit.
- Red and blue points of light may appear in the display. This is normal for a liquid crystal display and does not mean the display is damaged.
- The display uses a small fluorescent tube as a backlight for liquid crystals. If the screen goes black and does not light up, consult the place of purchase.

ABOUT THE DETAILED MAP SCREEN DISPLAY

Because the most detailed map reduction scales provided by the map disc vary depending on the region, when moving the map screen to a region of varying reduction scale, the screen may not show a map. Continue moving the map to return the normal driving map screen and the reduction scale will change to the most detailed map for the region presently displayed.

ABOUT USING THE UNIT WITH THE VEHICLE ENGINE TURNED OFF (WHEN THE UNIT POWER SOURCE IS THE VEHICLE BATTERY)

Using the unit when the vehicle engine is turned off may lead to weakening of the battery. Do not use the unit for an extended period with the engine turned off.

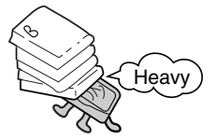
- Dust easily adheres to the screen necessitating periodical cleaning. When cleaning, cut off the power supply and wipe the screen with a soft cloth. Do not use a wet cloth and do not rub the screen with a hard object or hit the screen.

CAUTIONARY ITEMS FOR PROPER USAGE (3)

ABOUT THE INSTALLATION AREA

- Do not use for an extended period on a blanket, rug, carpet, cushion or other object that obstructs the proper release of heat. Heat will get trapped in the unit and lead to damage.
- Do not let urethane or rubber made sheets or vinyl articles come into contact with the unit for extended periods. This may lead to the paint falling off the cabinet or panel surface and lead to a deterioration of the visual appearance.

Do not place heavy objects such as a golf bag on top of the unit or hit the unit with such objects. This may cause the case to crack and lead to breakage as well as malfunctions.



Please be advised that SANYO will not assume any responsibility whatsoever for any troubles arising from mishandling the unit as a result of not following the cautionary items described within this manual. The unit is not guaranteed for troubles arising form improper handling or using the unit in a way contrary to conventional wisdom.

MAIN FEATURES (1)

NAVIGATION

GUIDES YOU TO YOUR DESIRED DESTINATION

The unit shows you the way just by selecting a destination point.

By registering the location of your home and pressing the Q.ROUTE button, the navigation unit will show you the recommended route from your present location to your home or destination.

☞See p.103, “Searching for a way home”.

Search for your destination by entering the address and telephone number.

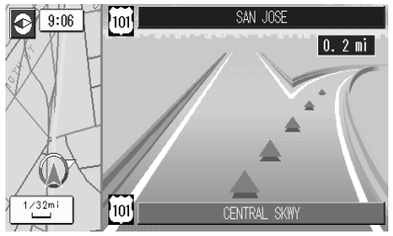
DISPLAYS THE RECOMMENDED ROUTE ALL THE WAY TO YOUR DESTINATION

The route is displayed right up to your destination.

Vocally guides you in an accurate and easy to understand way. (Voice guide)

Enlarges highway junctions. (Junction guide)

☞See p.115 and 116, “Display Intersection Enlargements”.



3 route selections displayed (Multiple route search)

The navigation unit finds different routes with different conditions leading to your destination. Routes prioritizing Faster Route, Shorter Route or Optimal are found simultaneously.

☞See p.89, “SINGLE-ROUTE/MULTI-ROUTE SEARCH”.

* The distance and required time are displayed as a guide. These may differ from the actual conditions.

MAIN FEATURES (2)

Constant turning direction display (Crossing Enlargement Display)

While driving, the turning direction at the next intersection may be constantly displayed.

☞See p.120, “Select to enable/disable simple turn indications”.

DISPLAYS THE CITY REALISTICALLY

Three-dimensionally displays from a viewpoint enabling a wide area perspective

The unit provides a detailed display of the actual position and surroundings from an angle looking down and towards your heading from far above.

☞See p.59, “Switching maps”.

DVD VIDEO/CD

☞See p.140, “DVD/CD/JPEG imaging operation”.

Multi-voice function

Switch to the desired audio language and enjoy the show.

* The unit cannot be switched to a language that is not recorded in the DVD video being played back.

Multi-subtitle function

Switch to the desired subtitle and enjoy the show.

* The unit cannot be switched to a language that is not recorded in the DVD video being played back.

Multi-angle function

Switch the angle for DVD videos with multiple recorded angles and enjoy the show.

OTHER FUNCTIONS

Dual battery format

For the power source, the unit uses either a 12V vehicle battery or a 120V AC, 60Hz household power source.

TFT color liquid crystal display

A high picture quality liquid crystal display enables beautiful and easy to view imaging.

Headphone (output) terminal provided

The sound can be heard using commercially available headphones.

Extension (output) terminal provided

Audio I/O and optical digital audio output terminal provided

- The sound can also be heard through a TV or amp by connecting them to the unit (when in NAVI or DVD mode).
- Connect a video deck/video camera to the unit to hear the sound outputted from those mediums through the unit (when in VIDEO mode).

Video I/O terminal provided

- The unit’s image output may be viewed from a TV by connecting it to the unit (when in NAVI or DVD mode).
- The image outputted from a video deck/video camera can be viewed through the unit by connecting it to those mediums (when in VIDEO mode).

S-video output terminal provided

If an S-video input terminal is provided on the TV to be connected to the unit, using that terminal for the connection will enable a clearer, sharper image (when in DVD mode).

ABOUT DISCS (1)

DISCS THAT CAN BE PLAYED BACK USING THE UNIT

DVD ROM/VIDEO	**Map DVD-ROM included with the unit** **DVD videos**
COMPACT disc DIGITAL AUDIO	**Music CDs**

■ The following discs cannot be played back.

- DVD-R
- DVD-RAM
- CD-ROM
- VSD
- CD-G
- Photo CDs
- CD-Extra (data only)
- Mixed CD
- CD-RW
- Video CDs
- DVD-RW
- Active Audio (data only)
- DVD+R
- DVD+RW
- CDs with copy protection function (copy control CDs)
- Any DVD video disc with any displayed region number other than “1” or “ALL”.
- Any disc recorded with a color TV format other than NTSC (PAL, SECAM).
- Discs recorded with a DVD video burner.

* JPEG images only can be played back from CD-R discs.
☞ See P.158, “Viewing JPEG images”.

■ About 3inch(8cm) discs

This unit does not require an 3inch(8cm) disc adaptor. Insert 3inch(8cm) discs just like any 5inch(12cm) disc.

■ About specially shaped discs

Do not use specially formed discs such as heart-shaped or hexagonal discs with this unit. These may not only damage the unit but, when ejecting the disc, it may fly out and cause injury due to its high speed rotation.

■ About the included map DVD-ROM

This disc is especially made for the unit. Using in another device may lead to damage to that device.

■ About copy protected CDs (copy control CD)

Use CDs that conform to CD Disc standard such as those with the CD logo mark printed on its label.

Using a CD with a copy protected function configuration whose purpose was to prevent computer aided reproduction may not playback normally. This is not due to a malfunction of the unit but rather to a phenomenon that occurs due to the lack of conformity of copy protected CDs (copy control CD) to CD standards. Should problems occur with the playback of copy protected CDs (copy control CD), consult the place of purchase.

ABOUT REGION NUMBERS

This unit’s region number is “1”.

The world is divided in 6 regions with corresponding region numbers for DVD software. This is to enable DVD players to playback only DVD software with corresponding region numbers. This unit will not playback any DVD video disc whose region number is other than “1” or “ALL”.

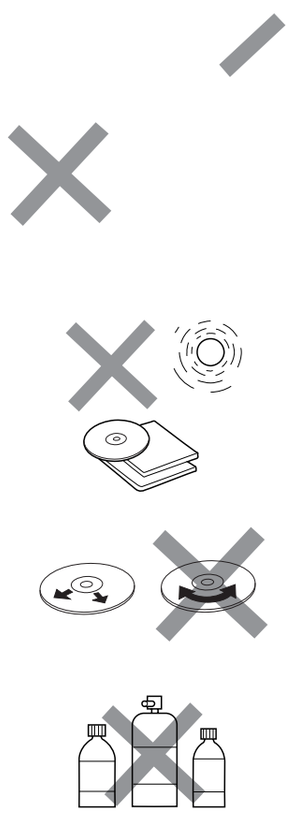
Hint

- Discs whose region number is “ALL” can be played back by DVD players with any region number regardless of the region.
- Discs whose region number is not indicated has a region number even though it is not shown. Contrary to discs that can only be played back using only DVD players with corresponding region numbers, there is a possibility that discs with no indicated region number may be played back using any DVD player regardless of the region.
- This unit will not playback discs recorded with a color TV format other than NTSC even if the region number is “1” or “ALL”.

JPEG IMAGING

Your JPEG imaging recorded in CD-R discs via a PC can be viewed.
☞ See p.158, “Viewing JPEG images”.

ABOUT DISCS (2)



WHAT IS A NAVIGATION SYSTEM (2)

■ About present location errors

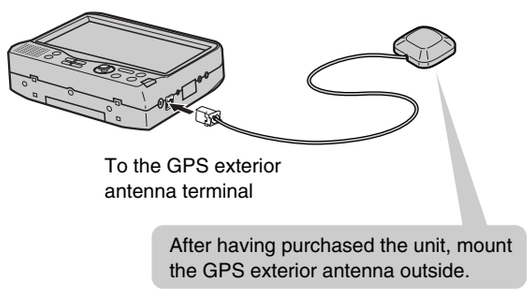
The mark denoting your vehicle's present location and heading may not be displayed accurately under the conditions mentioned below. The unit is not damaged. Continue driving (about 30 minutes at 20 mph) and the display will return to normal.

- Running in reverse
- Under a continuous elevation
- In a tunnel exceeding 1 mile in length
- When meandering in curves
- When the vehicle's speed changes abruptly (after exiting a toll booth and accelerating towards a tunnel)
- On a loop bridge
- When using the unit for the first time
- After debarking a ferry
- After driving with the DVD screen
- After driving with the VIDEO screen
- During tire replacement
- During tire chain installation
- When taking the unit into a different vehicle
- When crisscrossing through a parking lot (especially in an underground or multi-storied parking structure)

ABOUT THE GPS EXTERIOR ANTENNA

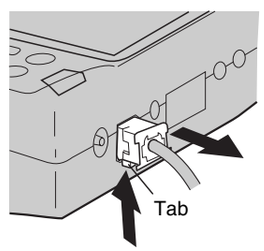
● The GPS exterior antenna must be connected in order to use the unit as a navigator. (The unit cannot use other types of antennas.) Not doing so will render present geographic location determination impossible.

INSTALLATION METHOD



REMOVAL METHOD

Press the protrusion and remove.



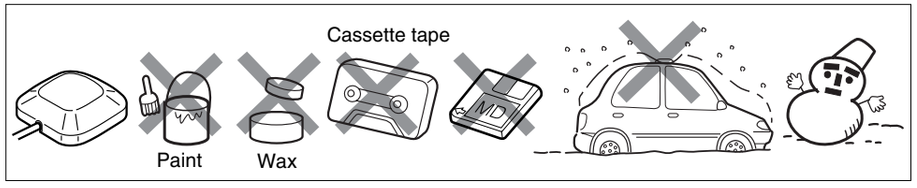
- Refer to the installation manual for how to install the antenna onto your vehicle.
- After installation, make sure to follow the instructions below:

■ Do not apply paint or auto wax to the GPS exterior antenna. This may lead to reduced reception sensitivity and a loss of signal reception from the GPS satellite.

■ Do not strike the antenna with an excessively strong spray of water when cleaning your vehicle. Also, remove the antenna from your vehicle before entering a carwash chamber.

■ The reception sensitivity is diminished by the accumulation of snow on the antenna. Remove the snow.

■ The GPS exterior antenna is equipped with a powerful magnet. Do not bring magnetic cards, cassette tapes or watches in close proximity to the antenna. (This may damage the antenna and render it useless.)



Hint

After having purchased the unit, the unit will display the present location as in the San Francisco area. Signals from the GPS satellite cannot be received from inside a building. If the present display does not change from the San Francisco area map, this means that the unit is not receiving any signals from the GPS satellite. Take the antenna out to a location where signals are not obstructed and proceed with reception.

☞See p.183, "Receiving signals from the GPS satellite".

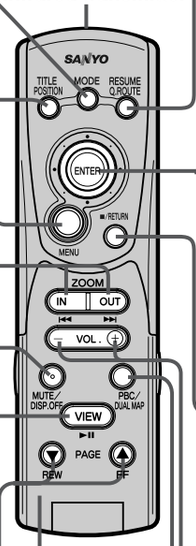
COMPONENT NAMES AND FUNCTIONS (1)

COMPONENT NAMES AND FUNCTIONS (2)

OPERATING THE NAVIGATION UNIT

REMOTE CONTROL

Remote control infrared transmitter



MODE button
The screen will switch from the NAVI mode to the DVD mode to the VIDEO mode (only with a video deck/video camera connected) every time this button is pressed. (See p.56)

POSITION button
Displays the present location map. (See p.62)

MENU button
- Displays the menu screen.
- Pressing for over 1.5 seconds will switch to the image adjustment mode. (See p.178)

IN button / OUT button
IN/OUT buttons Enlarge (IN) Reduce (OUT) (See p.60)

MUTE button
- This cuts the sound output. Press again to return the sound. (See p.40)
- Press over 2 seconds to erase the screen. Press again for over 2 seconds to redisplay the screen. (See p.40)

View button
Every time this button is pressed, the map display switches from 3D view to planimetric map (North Up) to planimetric map (Heading Up). (See p.59)

PAGE button
Press for the next/previous page when the display is incomplete on only one screen.

Q.ROUTE button
Used for a quick route search. (See p.66 and 67)

Joystick (✱)
- Used when changing the position display map and when selecting items appearing on the screen. (See p.40)
- When in image adjustment mode, use the vertical Joystick (⬍) to select items to adjust and the lateral Joystick (⬌) to perform the adjustment. (See p.178 to 180)

ENTER button
- This button executes the item selected on the screen. (See p.40)
- Press while the screen is displaying a map and a quick menu will appear. (See p.70)

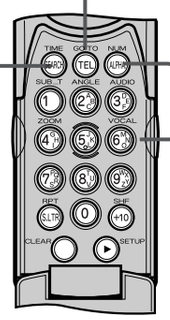
RETURN button
- Press this button to move the display back one screen when using the menu. (See p.40)
- Pressing while in image adjustment mode will cancel that mode. (See p.180)

VOL. button
– : reduce volume, + : increase volume

DUAL MAP button
Every time this button is pressed, the screen toggles between double screen display and full screen display. (See p.115)

Flip-top

Flip-top opened



SEARCH button
- Pressing this button when the telephone number input screen is displayed will show the map that corresponds with the inputted number.
- Pressing when the ABC input screen is displayed will start a search for the inputted point of interest or geographic name.

TEL button
This button displays the telephone number input screen when searching for a destination by telephone number.

ALPHA button

10-key and editing button
Used when inputting alphanumerically.

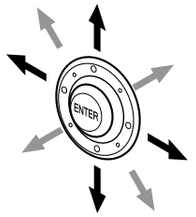
HOW TO USE THE JOYSTICK AND THE ENTER BUTTON

To use this unit, selecting and pressing (executing) the menus (items) appearing on the screen is the most basic operation. This operation is performed using the cursor key and the ENTER button. Learn how to use them well for smooth operation.

1 Select a menu (item) on the screen.

Use the joystick to select.
The joystick can be moved in 8 different directions.

* The illustration on the right represents the remote control.

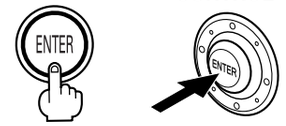


Hint Use the joystick also to move the map.

2 Press (execute) the selected menu (item).

Press the ENTER button.
The unit executes the item selected and displays the next screen.

MAIN UNIT / REMOTE CONTROL



HOW TO USE THE RETURN BUTTON

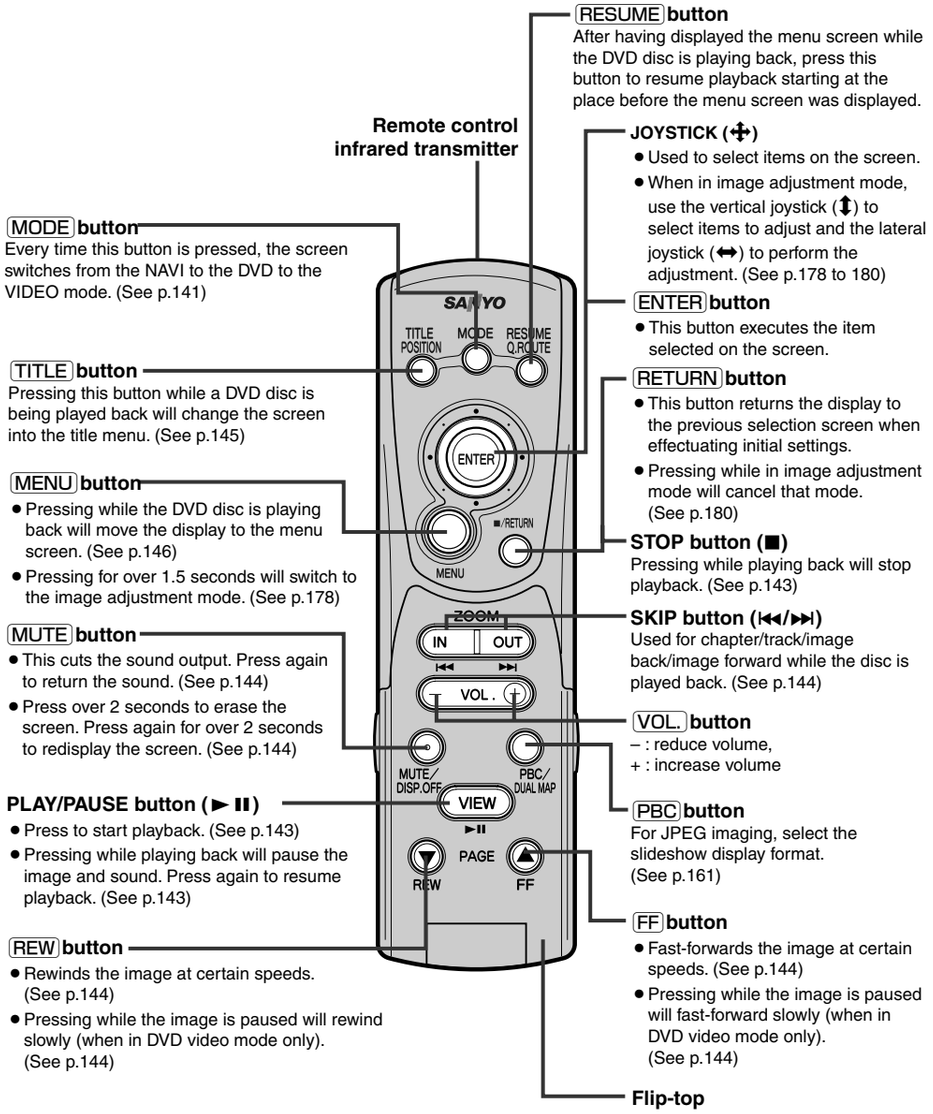
The RETURN button has two functions.

- **Returns the display to the previous screen. (Cancel)**
  Pressing when effectuating settings will cancel the settings and return the display to the previous screen.
- **Ends settings**
  Pressing after having completed setting the unit will update the settings and return the display to the map screen.

Hint Within the operation procedures described in this manual, instances when the RETURN button is to be pressed (such as after completing the settings) are clearly indicated. At other times, pressing this button will advance the display to the previous screen.

ABOUT THE MUTE BUTTON

- **Pressing the MUTE button will display "MUTE" and temporarily cut off the sound. Pressing once more will erase the "MUTE" display and return the sound.**
- **Pressing MUTE for over 2 seconds will indicate "DISPLAY OFF" for roughly 3 seconds and blacken out the image on the screen. Pressing once more for over 2 seconds will return the image on the screen.**



Remote control infrared transmitter

RESUME button
After having displayed the menu screen while the DVD disc is playing back, press this button to resume playback starting at the place before the menu screen was displayed.

JOYSTICK (✣)
- Used to select items on the screen.
- When in image adjustment mode, use the vertical joystick (↕) to select items to adjust and the lateral joystick (↔) to perform the adjustment. (See p.178 to 180)

MODE button
Every time this button is pressed, the screen switches from the NAVI to the DVD to the VIDEO mode. (See p.141)

ENTER button
- This button executes the item selected on the screen.

TITLE button
Pressing this button while a DVD disc is being played back will change the screen into the title menu. (See p.145)

RETURN button
- This button returns the display to the previous selection screen when effectuating initial settings.
- Pressing while in image adjustment mode will cancel that mode. (See p.180)

MENU button
- Pressing while the DVD disc is playing back will move the display to the menu screen. (See p.146)
- Pressing for over 1.5 seconds will switch to the image adjustment mode. (See p.178)

STOP button (■)
Pressing while playing back will stop playback. (See p.143)

SKIP button (⏮/⏭)
Used for chapter/track/image back/image forward while the disc is played back. (See p.144)

MUTE button
- This cuts the sound output. Press again to return the sound. (See p.144)
- Press over 2 seconds to erase the screen. Press again for over 2 seconds to redisplay the screen. (See p.144)

VOL. button
– : reduce volume,
+ : increase volume

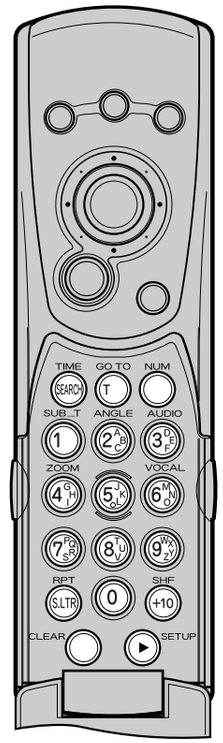
PLAY/PAUSE button (► II)
- Press to start playback. (See p.143)
- Pressing while playing back will pause the image and sound. Press again to resume playback. (See p.143)

PBC button
For JPEG imaging, select the slideshow display format. (See p.161)

REW button
- Rewinds the image at certain speeds. (See p.144)
- Pressing while the image is paused will rewind slowly (when in DVD video mode only). (See p.144)

FF button
- Fast-forwards the image at certain speeds. (See p.144)
- Pressing while the image is paused will fast-forward slowly (when in DVD video mode only). (See p.144)

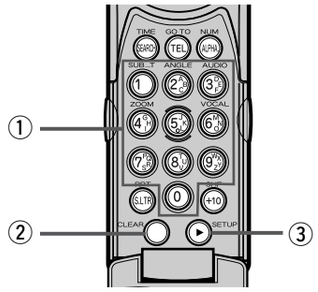
Flip-top



CHARACTER INPUT USING THE 10-KEY ON THE REMOTE CONTROL

CHARACTER ALLOCATION

Alphanumeric input can be entered directly by using the 10-key, by selecting characters from the keyboard displayed on the screen using the joystick or by mixing both methods.



Multiple alphanumeric characters are allocated for every button on the 10-key. The following describes each button and explains the function of the edit button.

Character allocation list

	Button	Input characters
①	① button	Numeral : 1
	② button	Alphabet : ABC Numeral : 2
	③ button	Alphabet : DEF Numeral : 3
	④ button	Alphabet : GHI Numeral : 4
	⑤ button	Alphabet : JKL Numeral : 5
	⑥ button	Alphabet : MNO Numeral : 6
	⑦ button	Alphabet : PQRS Numeral : 7
	⑧ button	Alphabet : TUV Numeral : 8
	⑨ button	Alphabet : WXYZ Numeral : 9
	0 button	Numeral : 0
②	CLEAR button	Erases one character at a time.
③	▶ button	Moves the cursor 1 character at a time to the right. * When using the same button to input another character, press the ▶ button after the first character is inputted and the cursor will move to the right. Then, input the next character. When using a different button to input the next character, the cursor will automatically move to the right.

HOW TO ENTER CHARACTERS USING THE 10-KEY

1 Repeatedly press the button on which the character to be inputted is located and it will be displayed on the screen.

2 Press the ▶ button to confirm the character selection.

* If the character desired is not allocated on the same button, it is not necessary to press the ▶ button. Pressing the next desired button will automatically confirm the previous character selection.

Ex.) Inputting "**AB**"

2 → ▶ → 2

A → **B**

Inputting "**AD**"

2 3

A → **D**

* When having made an error inputting characters, press the CLEAR button and reenter the character.

3 Repeat steps 1 and 2 to input characters.

INPUTTING NUMBERS IN THE TELEPHONE NUMBER INPUT SCREEN

Only numbers can be inputted.

1 Press the button for the number desired.

* The character is confirmed the moment it is inputted.
* Press the CLEAR button when having made an error and reenter the number.

2 Press the SEARCH button to initiate a map search.

* When there is no data available, "No data found" is displayed.

Hint

- The input method described here is but one example. There are other character input screens. Refer to the pages describing each screen for their respective input methods.
- When inputting using the 10-key, you can also move the cursor to the desired character on the keyboard displayed on the screen and input characters mixing both methods.

HOW TO HANDLE THE REMOTE CONTROL (1)

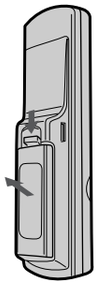
INSERT BATTERIES IN THE REMOTE CONTROL

The remote control uses two AAA batteries.

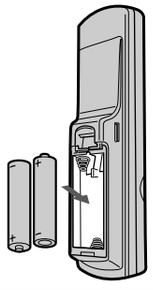
⚠ CAUTION

- **Align the "+" and "–" terminals correctly and do not mix an old with a new battery or two different kinds of batteries. Otherwise, the batteries may leak and crack leading to fires and injury.**
- **Batteries cannot be recharged.**
- **Installing or leaving the remote control in direct sunlight such as the dashboard will cause deformation and malfunctions. Exercise caution.**
- **Spilling water, beverages or solvents onto the remote control may cause damage. Exercise caution.**

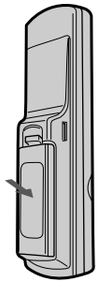
1 **Press down on the tab and pull the cover outward.**



2 **The battery inserted on the left has its minus terminal pointing upwards and the right battery has its plus terminal pointing upwards.**

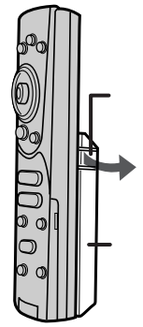


3 **Align the bottom tab of the cover with the groove on the remote control and close.**

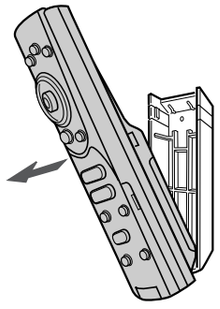


REMOVE THE REMOTE CONTROL FROM THE HOLDER

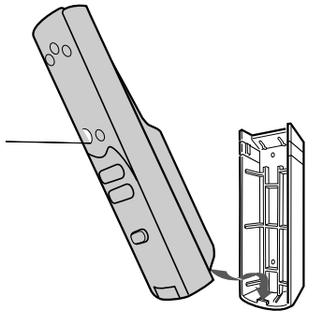
1 **Push the side tabs on the holder a bit outwards and remove.**



2 **Pull it outwards.**



1 **Align the tab on the bottom of the holder with the groove on the bottom part of the remote control.**

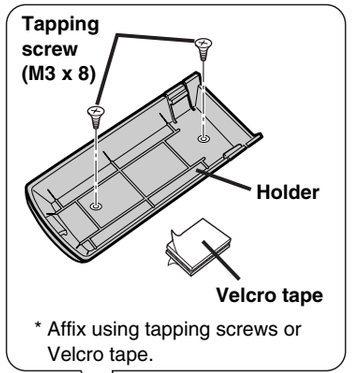


HOW TO HANDLE THE REMOTE CONTROL (2)

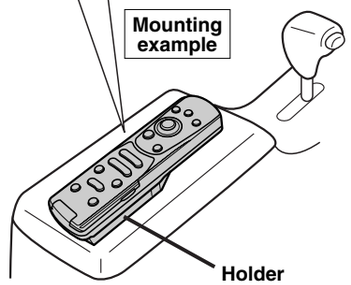
MOUNTING THE HOLDER

If mounting the holder in your vehicle, affix using the included tapping screws (M3 x 8) or the magic tape.

* When mounting using the magic tape, clean the adhesion surface as much as possible.
* When mounting using the tapping screws, holes must be made in the mounting surface. Exercise caution.



* Affix using tapping screws or Velcro tape.



< **When removing the remote control from the holder,**
pull the top of the remote control upwards.

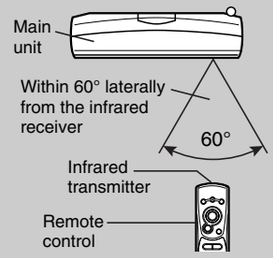
< **When returning the remote control device to the holder,**
refer to
" RETURNING THE REMOTE CONTROL TO THE HOLDER "
on the previous page.

Hint

To operate the unit using the remote control, point the remote control infrared transmitter towards the unit's remote control infrared receiver. To use the remote control as is from the mounted holder, follow the instruction below:

- Mount the holder in a way so that the remote control infrared transmitter is oriented toward the unit's remote control infrared receiver.

Remote control signal range



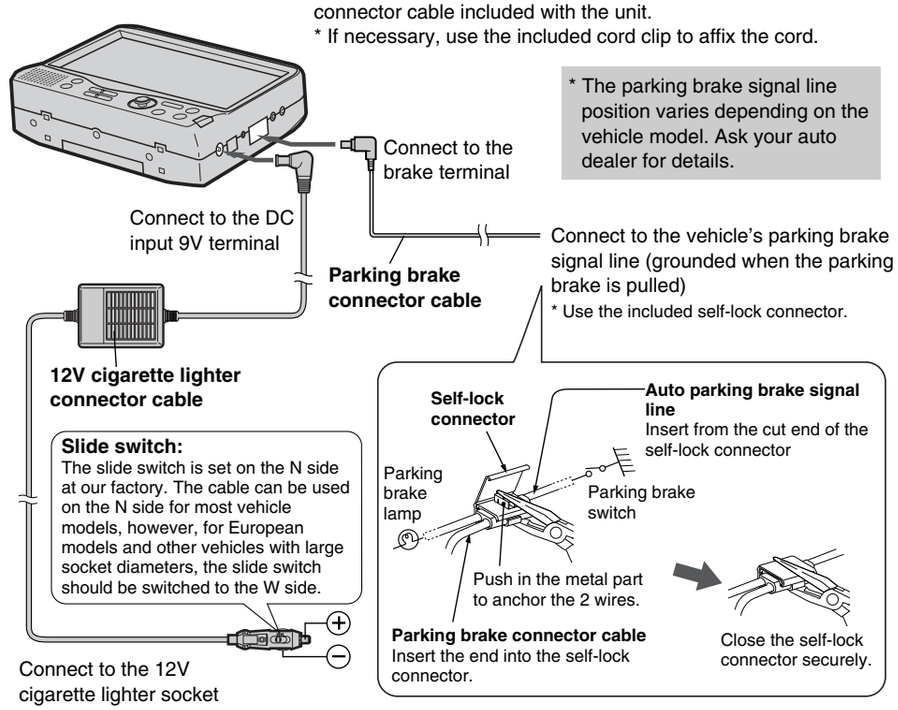
- After confirming proper remote control operation from the mounting area, affix using the included tapping screws (M3 x 8) or the Velcro tape.
- Under direct sunlight, the unit may not properly receive the signals transmitted by the remote control. In such a case, bring the remote control in close proximity to the unit's infrared receiver and operate.

ABOUT THE POWER SOURCE (1)

USING A 12V VEHICLE BATTERY

Use the 12V cigarette lighter connector cable and parking brake connector cable included with the unit.
* If necessary, use the included cord clip to affix the cord.

* The parking brake signal line position varies depending on the vehicle model. Ask your auto dealer for details.


Connect to the brake terminal
Connect to the DC input 9V terminal
Parking brake connector cable
Connect to the vehicle's parking brake signal line (grounded when the parking brake is pulled)
* Use the included self-lock connector.
12V cigarette lighter connector cable
Slide switch:
The slide switch is set on the N side at our factory. The cable can be used on the N side for most vehicle models, however, for European models and other vehicles with large socket diameters, the slide switch should be switched to the W side.
Connect to the 12V cigarette lighter socket
Self-lock connector
Auto parking brake signal line
Insert from the cut end of the self-lock connector
Parking brake lamp
Parking brake switch
Push in the metal part to anchor the 2 wires.
Parking brake connector cable
Insert the end into the self-lock connector.
Close the self-lock connector securely.

⚠ CAUTION

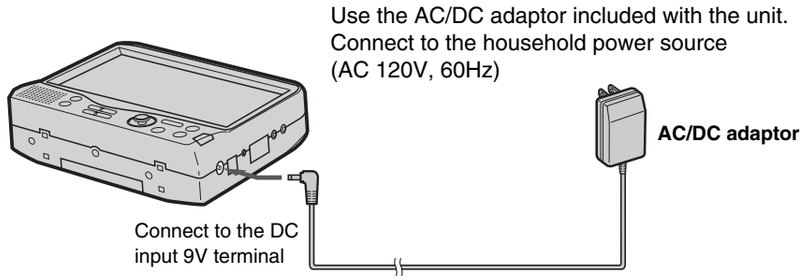
When connecting the unit to the cigarette lighter, the vehicle battery will be drained of its power as long as the lighter's power supply is turned ON. If your vehicle's cigarette lighter power supply does not cut off when turning OFF the engine, make sure to pull the 12V cigarette lighter connector cable from the vehicle's cigarette lighter socket when turning OFF the engine. Leaving the connector in the socket for extended periods may drain the battery.

Hint

- For safety, videos or DVDs cannot be watched nor can selections be made on the menu if the parking brake is not set.
- If turning ON the engine while using the navigation system, the unit may return to the initial screen due to a drop in voltage.

ABOUT THE POWER SOURCE (2)

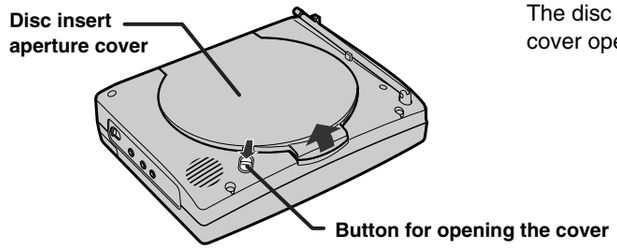
USING A HOUSEHOLD POWER SOURCE (AC 120V, 60Hz)


Use the AC/DC adaptor included with the unit.
Connect to the household power source
(AC 120V, 60Hz)
AC/DC adaptor
Connect to the DC
input 9V terminal

INSERTING/REMOVING A DISC (1)

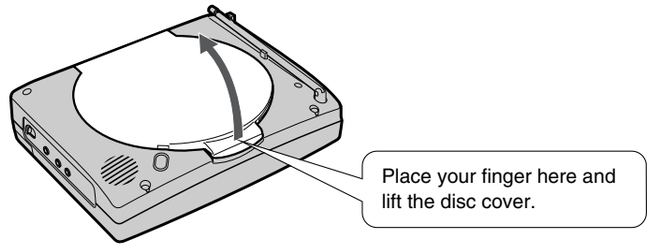
INSERTING A DISC

1 **Press the button for opening the cover.**

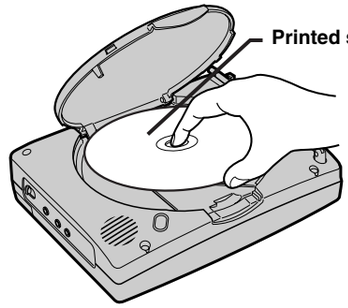


The disc insert aperture cover opens slightly.

2 **Open the disc insert aperture cover.**



3 **Insert a disc.**



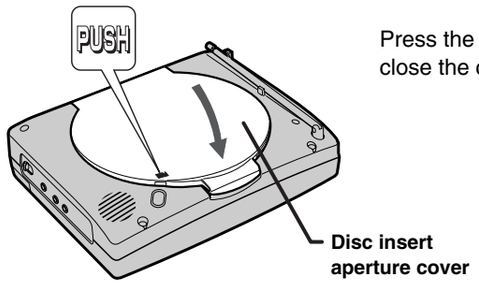
Align the disc's central opening with the black holder in the housing and insert the disc with the printed surface facing upwards.

Hint

- When playing back, the disc rotates at a high speed. Make sure to insert the disc and press down until a snap is heard to ensure that the disc will not fly off during playback.
- Insert 3inch(8cm) CDs in the same manner. (Adaptor not required)

INSERTING/REMOVING A DISC (2)

4 **Close the disc insert aperture cover.**



Press the " PUSH " mark appearing on the cover and close the cover completely.

Hint

The disc will not playback if the cover is not completely closed.

REMOVING THE DISC

1 **As described in steps 1 and 2 (p.52), open the disc cover, wait till the disc stops rotating and pull the disc out from its edge.**

2 **As described in step 4 above, close the disc cover.**

⚠ CAUTION

During playback, if cutting the power OFF or switching to VIDEO mode before opening the disc cover, it may take a moment before the disc stops rotating. Make sure to remove the disc only after it stops rotating. Not doing so may result in scratches on the disc or cuts on your fingers.

NAVI OPERATION

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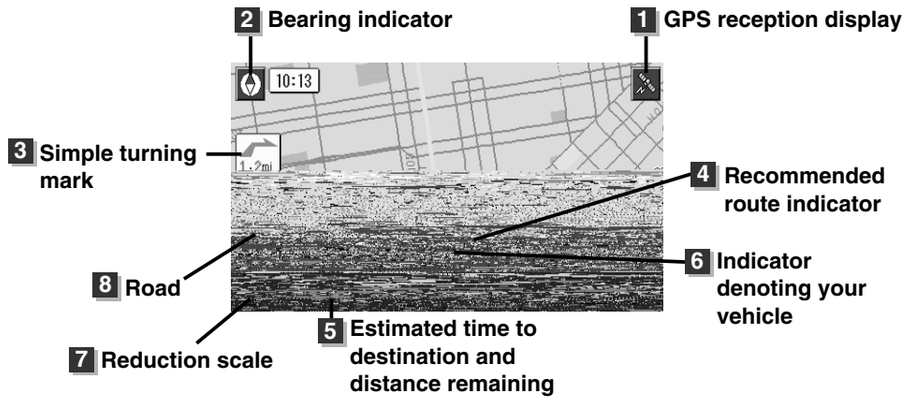
HOW TO VIEW THE MAP SCREEN

THE FOLLOWING IS A TYPICAL EXAMPLE OF A MAP DISPLAY

The navigation system displays various types of information on the map screen.

PLANIMETRIC MAP SCREEN



1 GPS reception display
Indicates a color denoting the positioning accuracy for the present location.
Yellow: The present location is determined.
Gray: The present location is not determined or is in the process of being determined.

Hint

Proper positioning may take a moment before being effectuated. For about 3 to 4 minutes after introducing the power supply, the GPS reception display will be indicated in gray.

2 Bearing indicator
The “N” orientation denotes the north.

3 Simple turning mark
Simply indicates right or left turns.

4 Recommended route indicator
When the unit searches for a route, the recommended route is indicated as a thick purple or green line (as per setting, see p.120, “Select the set route color”). Toll roads are shown in red.

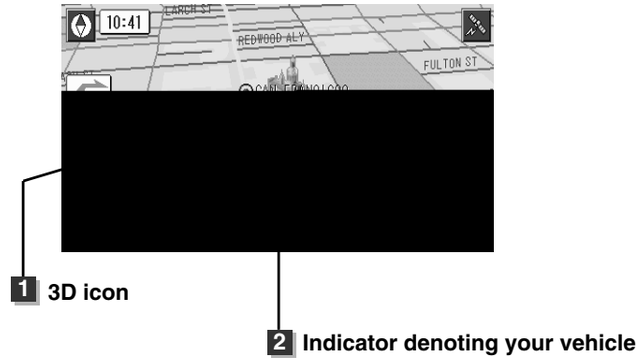
5 Estimated time to destination and distance remaining
When effectuating route guidance, the estimated time to destination and the distance remaining are indicated.

6 Indicator denoting your vehicle
This shows the position of your vehicle (present location) and the heading.

7 Reduction scale
This shows the map scale.

8 Road
Road types are classified by color.
Red: highways, freeways, toll roads
Orange: main regional roads
Gray: other local roads

VIEW



1 3D icon
Indicates specified buildings three-dimensionally.

2 Indicator denoting your vehicle
This shows the position of your vehicle (present location) and the heading.

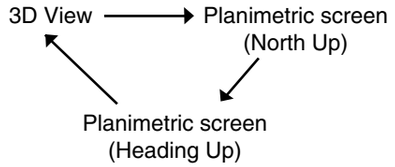
MAP REDUCTION SCALE LEVELS

Map reduction	Scale	Scale
1/3125	1/64 mile	25 m
1/6250	1/32 mile	50 m
1/12500	1/16 mile	100 m
1/25000	1/8 mile	200 m
1/50000	1/4 mile	400 m
1/100000	1/2 mile	800 m
1/200000	1 mile	2 km
1/400000	2 mile	4 km
1/800000	4 mile	8 km
1/3200000	16 mile	32 km
1/12800000	64 mile	128 km
1/51200000	256 mile	512 km

CHANGING THE MAP DISPLAY (1)

SWITCHING MAPS

There are 3 types of map screens available: planimetric map screen (North Up), planimetric map screen (Heading Up) and 3D View. Press the VIEW button to switch screens. Every time the VIEW button is pressed,



…are inter-switched.

Planimetric screen

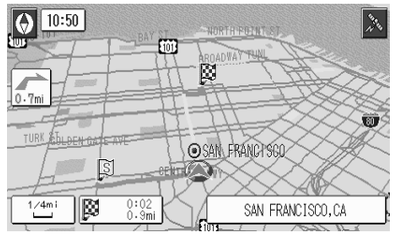
This map screen appears as if looking directly down from above.

Press the IN button.

Planimetric map screen showing an urban area

3D View

Map screen showing a view looking down and forward from above.



Press the IN button.

3D View of an urban area

Hint

About the planimetric map screen

- A "●" mark indicates your vehicle at full stop.

About 3D View

- When in 3D View, the map scroll may be a bit slow.
- The heading direction is always towards the top of the screen.
- Street and area name displays appearing in the foreground and background of the screen may differ.
- In order to keep the screen display from becoming too cluttered, character spacing is thinned out depending on the screen being viewed. The character display may vary when the screen is changed and the same character may not be displayed. Similarly, multiple display of street names may also occur.

CHANGING THE MAP DIRECTION

When in planimetric map screen

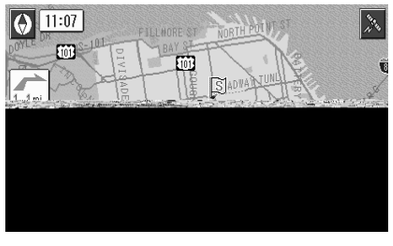
The map's display direction can be changed.

See p.116, "Select the map display method".
See p.113, "Changing the main screen settings".

- **Heading Up**
  With the heading always towards the top of the screen, the mark indicating your vehicle and the screen's orientation can be coordinated. The map rotates along with the veering of the vehicle.
- **North Up**
  If a moving map is confusing, set the screen to show the northern direction as the top.

Heading Up

North Up

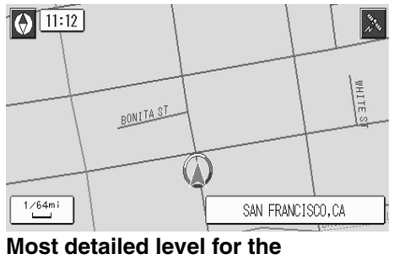


ENLARGEMENT/REDUCTION OF THE MAP

- **When enlarging the map (detailed map)**
  Press the IN button.
  * A detailed map showing a 1-level enlargement of the present map is displayed.
- **When reducing the map (broad map)**
  Press the OUT button.
  * A broad map showing a 1-level reduction of the present map is displayed.
- **When free-zooming the map**
  Press down on the IN (map enlargement) or OUT (map reduction) button continuously.
  * The map reduction scale level presently displayed changes 1 level at a time. Lifting your finger will stop at that reduction scale level. Lift your finger when the desired reduction level appears.

Broadest level for the planimetric map screen.

Press the IN button. **Press the OUT button.**



Most detailed level for the planimetric map screen.

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CHANGING THE MAP DISPLAY (2)

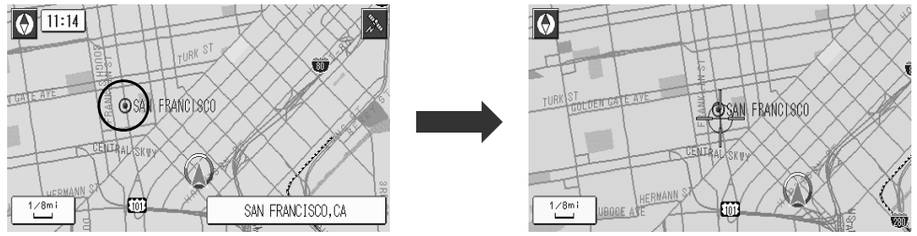
Hint

- Pressing repeatedly on the IN/OUT button enables the unwanted reduction scale level screen displays to be skipped.
- See p.58, “Map reduction scale levels”, for details pertaining to planimetric map screen and 3D View reduction scale levels.

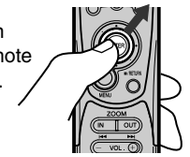
MOVING THE MAP (scroll)

When moving the map screen, move the Joystick.

* Pressing down the Joystick to the desired direction will scroll the map in that direction.



* The illustration shows the remote control device.



This example represents pressing the top right direction.

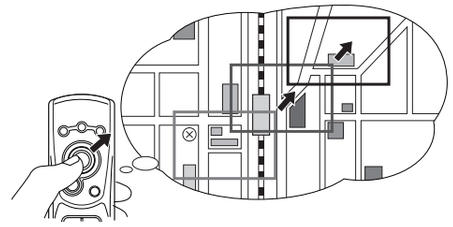
Hint

- The Joystick can move in 8 directions (✱).
- To return to the present location, press the POSITION or the RETURN button.

HOW TO USE THE CURSOR

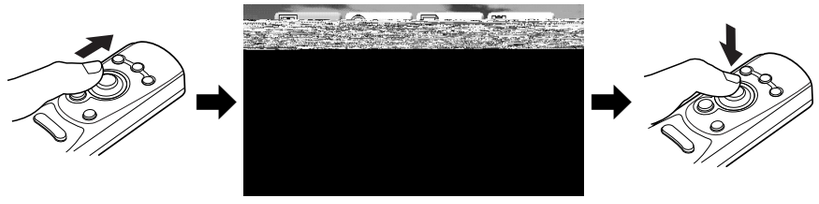
Using to scroll the map

Moving the cursor in 8 directions on the map screen enables the map to be scrolled. Pressing a given key continuously will scroll the map in that direction.



Using to select and execute items on the screen menu

Moving the cursor in 4 directions on the screen showing the menu enables menu item selection. The menu item selected will appear in yellow. Pressing once will move the item indication (in yellow) once over to the next item. Selecting an item and pressing the ENTER button will execute that function or go to the next menu.



NAVI

ABOUT DISPLAYS DURING ROUTE SEARCH

When searching for a route, the following displays appear as per the conditions.

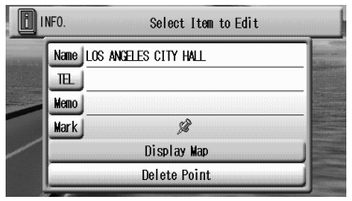
* ☞ See p.85, “About setting routes”, for route searching methods.

About geographic point registration

Scroll the map and press the ENTER button to display the next screen.

Select **Save Place** and press the ENTER button and **YES** button. The following message will appear on the screen.

1 **Select the item (Name/TEL/Memo/Mark) to register and press the ENTER button.**



Registering the name

Name

Name input screen

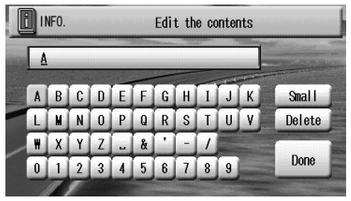
NAVI

CHANGING THE MAP DISPLAY (4)

2 **Inputting.**

Example Inputting “A” → “B” in the memo.

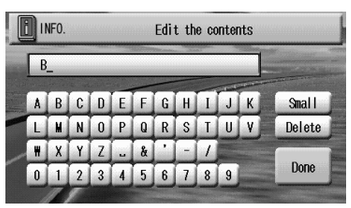
Clearing the inputted (A) character.



① **Select** Delete **and press the** ENTER **button.**

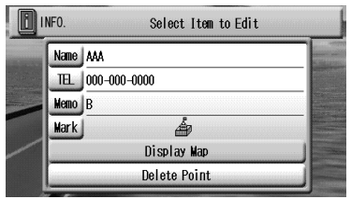
< **You can also delete characters by opening the remote control flip-top and pressing the** CLEAR **button.**

② **Inputting “B”**



3 **When inputting is complete, select** Done **on the item board and press the** ENTER **button. The inputted content is confirmed.**

To change/register another item (Name/TEL/Memo/Mark), repeat steps **1** to **3**.



4 **To complete setting...**

Press the Display Map **on the screen to return to the map you stored now.**

Press the POSITION **button to return the screen to the present location map.**

Press the MENU **button to return to the menu screen.**

QUICK ROUTE SEARCH (1)

Align the destination with the cursor and press the quick route button to initiate a search for a reference route from your present location to the destination based on the map disc data and the search conditions (Faster Route/Shorter Route/Optimal, ☞see p.105 “Modifying route conditions”). Also, if having registered the location of your home, the unit will search for the way home from your present location.

SEARCHING FOR A ROUTE FROM YOUR PRESENT LOCATION TO THE DESTINATION

1 **Press the** POSITION **button to confirm the present location positioning.**

If this mark is yellow, the positioning is O.K.!

Present location display screen (example)

2 **Use the Joystick to scroll the map and display the map of the destination.**

☞See p.62, “Moving the map”.
See p.60, “Enlargement/reduction of the map”.

3 **Align the cursor on the destination and press the** Q.ROUTE **button.**

Choosing the most detailed map reduces the positioning error!

4 **Select** YES **and press the** ENTER **button.**

This initiates a reference route search. When the search is complete, wait a moment until the route guidance screen appears.

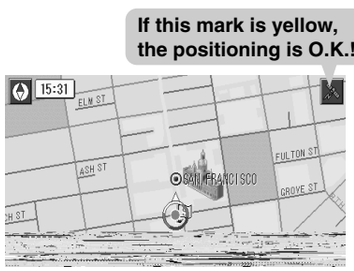
You can interrupt searches by pressing the MENU button.

When pressing the **Q.ROUTE** button and a confirmation message appears to set highways, select **YES** to register highways or **NO** to register local roads and press the ENTER button.

QUICK ROUTE SEARCH (2)

SEARCHING FOR A ROUTE FROM THE PRESENT LOCATION TO YOUR HOME

1 **Press the [POSITION] button to confirm the present location positioning.**



Present location display screen (example)

2 **Press the [Q.ROUTE] button on the present location display.**

3 **Select [YES] and press the [ENTER] button.**

This initiates a reference route search. When the search is complete, wait a moment until the route guidance screen appears.

You can interrupt searches by pressing the [MENU] button.

Hint

- To search for a route home, it is necessary to register the location of your home in advance.
  ☞ See p.70.“About the quick menu”.
  ☞ See p.84.“Registering your home”.
- When initiating a new route search, the previously searched reference route is deleted. To save the reference route in the memory, refer to “Storing the present route”.
- Reference routes vary depending on the map disc. It may not always select the shortest route for you.

⚠ CAUTION

Depending on changes in traffic conditions, you may not be able to drive on the reference route provided by the unit. In such a case, proceed following the actual traffic conditions.

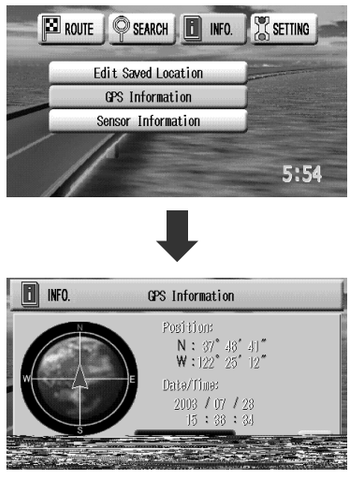
BASIC MENU OPERATIONS

Most of the operations for the navigation system are effectuated using the menu. It is an important tool to ensure the proper operation of the unit. Become well accustomed to the menu.

Example **Viewing the GPS Information screen**

1 **Press the [MENU] button.**

2 **Select [GPS Information] from the [INFO.] drop-down menu and press the [ENTER] button.**



3 **When finished viewing…**

< **When selecting [BACK], press the [ENTER] button or the [RETURN] button on the remote control.**
The display returns to the menu screen.

< **Press the [POSITION] button.**
The display returns to the present location map.

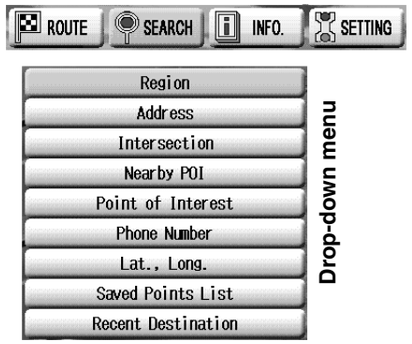
< **Press the [MENU] button.**
This display returns to the menu screen.

NAVI

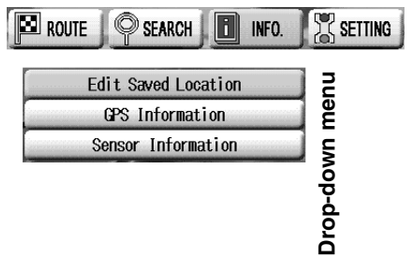
LIST OF MENU ITEMS

Menu

Menu



Menu



Menu

ABOUT THE QUICK MENU

A quick menu is set in this unit to facilitate its main operations. When viewing a map display and pressing the ENTER button, the quick menu appears. Select an item using the vertical joystick (⬍) and press the ENTER button.

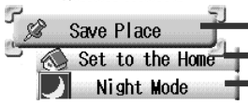
WHEN HAVING PRESSED THE ENTER BUTTON WHEN IN PRESENT LOCATION DISPLAY

① **Quick menu**

- Geographical point registering effectuated.
  “About geographic point registration” (☞ See p.63 to 65)
- Geographical point registered as the location of your home.
  “Registering your home” (☞ See p.84)
- Select either “Night Mode”, “Auto Change” or “Day Mode”.
  ☞ See p.123, “Select the map color (Day/Night/Auto)”
- Select “Stopping / Starting Route Guidance ” (☞ See p.104)
  * No display is provided if the present route does not exist in the map disc.

WHEN HAVING PRESSED THE ENTER BUTTON WHILE MAP SCROLLING

② **Quick menu**



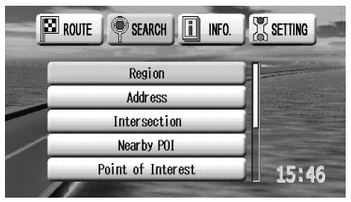
- Geographical point registering effectuated.
  “About geographic point registration” (☞ See p.63 to 65)
- Geographical point registered as the location of your home.
  “Registering your home” (☞ See p.84)
- Select either “Night Mode”, “Auto Change” or “Day Mode”.
  ☞ See p.123, “Select the map color (Day/Night/Auto)”

SEARCHING FOR A GEOGRAPHICAL POINT (1)

SELECT THE REGION Region

1 **Press the MENU button.**

2 **Select Region from the SEARCH drop-down menu and press the ENTER button.**



3 **Select Forward or Backward and press the ENTER button to choose the region.**

4 **Select Select and press the ENTER button.**

Hint

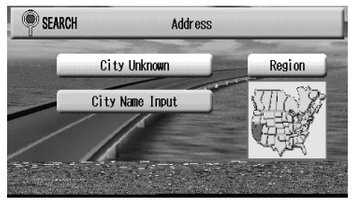
- The Region can also be selected by the **Address** or **Point of Interest** items in the drop-down menu.

SEARCHING FOR A GEOGRAPHICAL POINT BY THE ADDRESS Address

Select Address from the SEARCH drop-down menu and press the ENTER button.

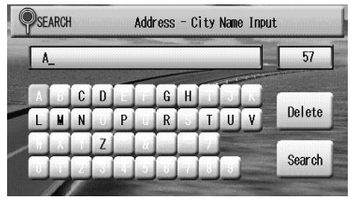
• When inputting a city name

1 **Select City Name Input and press the ENTER button.**



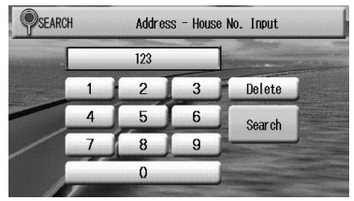
2 **Input the city name.**

* When inputting the first few characters, a corresponding list will appear.



3 **Select a corresponding item from the list and press the ENTER button.**

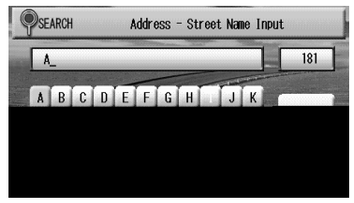
4 **Input the house number, select Search and press the ENTER button.**



* If the house number is not known, select **House No. Unknown** and press the ENTER button.

5 **Input the street name, select an item from the corresponding list and press the ENTER button.**

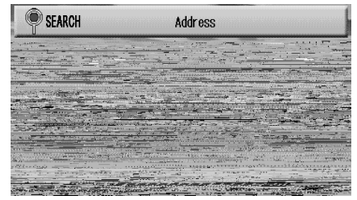
: A map of the surrounding area will be displayed.



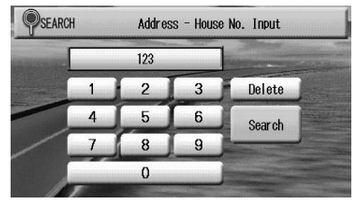
6 **For returning to the present location, press the POSITION button.**

• If the city name is unknown

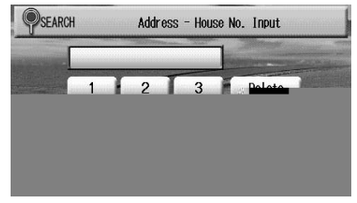
1 **Select City Unknown and press the ENTER button.**



2 **Input the house number and press the SEARCH button.**

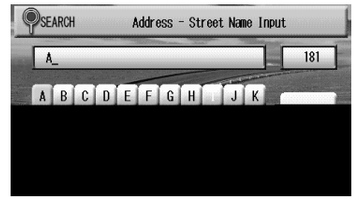


* If the house number is not known, select **House No. Unknown** and press the ENTER button.



3 **Input the street name and press the ENTER button.**

* When inputting the first few characters, a corresponding list will appear.



NAVI

SEARCHING FOR A GEOGRAPHICAL POINT (2)

4 **Select a corresponding item from the list and press the ENTER button.**

: A map of the surrounding area will be displayed.

5 **For returning to the present location, press the POSITION button.**

Hint

If the inputted house number does not exist in the map disc, a map of the surrounding area will appear.

SEARCHING A GEOGRAPHICAL POINT BY INTERSECTION Intersection

1 **Press the MENU button.**

2 **Select Intersection from the SEARCH drop-down menu and press the ENTER button.**

3 **Enter the first street name and press the ENTER button.**

* When inputting the first few characters, a corresponding list will appear.

4 **Select a corresponding item from the list and press the ENTER button.**

5 **Enter the second street name (crossing the other) and press the ENTER button.**

* When inputting the first few characters, a corresponding list will appear.

6 **Select a corresponding item from the list and press the ENTER button.**

7 **Select Search and press the ENTER button.**

: A map of the surrounding area will be displayed.

8 **For returning to the present location, press the POSITION button.**

SEARCHING FOR A GEOGRAPHIC POINT BY A POINT OF INTEREST (POI) IN THE SURROUNDING AREA Nearby POI

A geographic point can be searched from the present location or from a point of interest in the area being scrolled to. The distance to the POI and its position can be verified. This operation is helpful when looking for a convenience store near the geographic point you are searching for.

1

- **When searching for a POI in the area surrounding the present location**

  Press the POSITION button.

- **When searching for a POI in the area being scrolled to**

  Align the “+” on the map to the POI desired.

2 **Press the MENU button.**

3 **Select Nearby POI from the SEARCH drop-down menu and press the ENTER button.**

SEARCHING FOR A GEOGRAPHICAL POINT (3)

4 **Move the joystick vertically and select the type of point of interest from the list and press the ENTER button. Then, select a more specific type of POI and press the ENTER button. If another selection list appears, choose the type and press the ENTER button.**

5 **Select the name of the POI from the list and press the ENTER button.**

< **To display the map of the POI surrounding area,**
press the ENTER button again.

: The map representing the surrounding area of the POI is displayed. Check the area by scrolling the map and changing the reduction scale. To program a geographic point, press the ENTER button, select **Save Place** and press the ENTER button again. [Do you want to save the lacation?] will be displayed. If you press **Yes**, [Point is stored. Do you want to edit stored information?] will be displayed. If you press **Now**, refer to p.63, “About geographic point registration.”

6 **For returning to the present location, press the POSITION button.**

SEARCHING FOR A GEOGRAPHICAL POINT BY THE POI CATEGORY Point of Interest

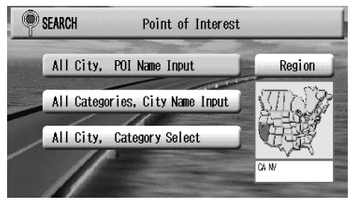
Geographical points can be searched for by category.

Press the MENU button.

Select Point of Interest from the SEARCH drop-down menu and press the ENTER button.

• If inputting the POI name

1 **Select All City, POI Name Input and press the ENTER button.**

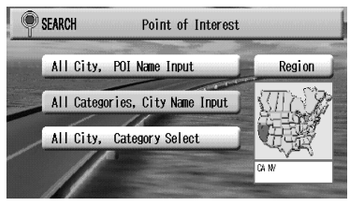


2 **Input the POI name.**
* When inputting the first few characters, a corresponding list will appear.

3 **Select a corresponding item from the list and press the ENTER button.**
Press the ENTER button again to display the map screen.

• If inputting the City name

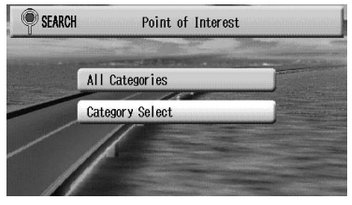
1 **Select All Categories, City Name Input and press the ENTER button.**



2 **Input the City name.**
* When inputting the first few characters, a corresponding list will appear.

3 **Select a corresponding item from the list and press the ENTER button.**

4 **● If inputting the category name,**
select **All Catrgories**, press the ENTER button and input the category name.



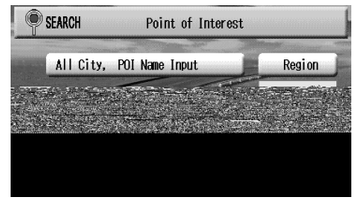
* Input the first few characters and a corresponding list will appear. If there is only one category, the display will automatically show that category.

● If selecting the category,
select **Category Select**, press the ENTER button.

5 **Select a corresponding item from the list, press the ENTER button and the map screen will appear.**

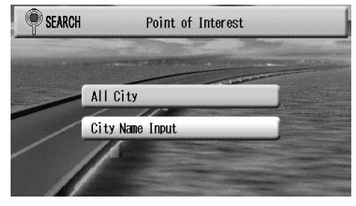
• If selecting the category

1 **Select All City, Category Select and press the ENTER button.**



2 **Select a corresponding item from the list and press the ENTER button.**
* If a list is displayed many times, select a corresponding item and press the ENTER button.

All City and City Name Input are displayed.



NAVI

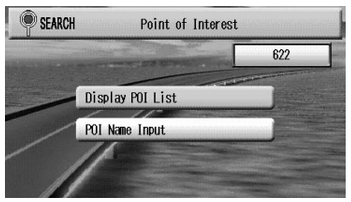
SEARCHING FOR A GEOGRAPHICAL POINT (4)

● **To make a selection from a list of all area names, select** [All City] **.**

① Select the corresponding item and press the [ENTER] button.

② Press the [ENTER] button again to display the map screen.

If the corresponding items in ① are many, [Display POI List] **and** [POI Name Input] **are displayed.**



To select by the POI list, select [Display POI List] **.**

Select a corresponding item and press the [ENTER] button. Press the [ENTER] button again to display the map screen.

To select by the POI name, select [POI Name Input] **and input the POI name.**

* Input the first few characters and a corresponding list appears. Select a corresponding item and press the [ENTER] button. Press the [ENTER] button again to display the map screen.

● **If making a selection by inputting the area name, select** [City Name Input] **.**

① Input the City name.

* When inputting the first few characters, a corresponding list will appear.

② Select a corresponding item from the list and press the [ENTER] button.

* If a list is displayed many times, select a corresponding item and press the [ENTER] button.

③ Press the [ENTER] button again to display the map screen.

3 For returning to the present location, press the [POSITION] button.

SEARCHING FOR A GEOGRAPHICAL POINT BY TELEPHONE NUMBER
[Phone Number]

A geographical point can be searched for by inputting the telephone number.

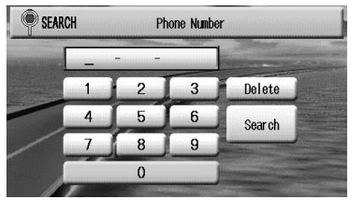
1 Press the [MENU] button.

< **Open the flip-top on the remote control device and press the [TEL] button to display the screen in step 3 .**
In this case, Go to step 3 .

2 Select [Phone Number] **from the** [SEARCH] **drop-down menu and press the [ENTER] button.**

3 Input the telephone number.

* Input the entire telephone number including the area code (max 10 digits).



< **If inputting the number using the Joystick,**
move the cursor and select numbers ([0] to [9]) from the keyboard and press the [ENTER] button. If having made an input error, move the cursor to select [Delete] and press the [ENTER] button. The last inputted number will be deleted.

< **When inputting the number using the 10-key ,**
open the remote control flip-top and press the buttons on the 10-key (⓪ to ⑨). If having made an input error, press the [CLEAR] button and the last inputted number will be deleted.

4 Select [Search] **and press the [ENTER] button.**

< **A search can be effectuated by opening the remote control flip-top and pressing the [SEARCH] button.**

: A map of the surrounding area will be displayed.

5 For returning to the present location, press the [POSITION] button.

Hint

If the corresponding telephone number does not exist in the map disc, “No data found” will be displayed. Press the [ENTER] button, check the number and reenter it.

NAVI

SEARCHING FOR A GEOGRAPHICAL POINT (5)

SEARCHING FOR A GEOGRAPHICAL POINT USING LATITUDINAL AND LONGITUDINAL COORDINATES Lat., Long.

A geographical point can be searched for by inputting latitudinal and longitudinal coordinates.

Example **Displaying a location "34 deg. 47 min. 16 sec. north and 135 deg. 26 min. 38 sec. east".**

1 **Press the MENU button.**

2 **Select Lat., Long. from the SEARCH drop-down menu and press the ENTER button.**

3 **Input the lat./long. coordinates. Input the latitude (north lat.) first and then the longitude (east long.).**

(When inputting is complete, the cursor will automatically move to Search.)

When inputting numbers, those that cannot be selected will appear in gray.

< If inputting the number using the joystick,

move the cursor and select numbers (0 to 9) from the keyboard and press the ENTER button. When having made an inputting error, Delete the selection by pressing Delete on the screen or the CLEAR button on the remote control.

< When inputting the number using the 10-key ,

☞ See p.78, "Searching a geographical point by telephone number" for the input method.

4 **Select Search and press the ENTER button.**

: A map of the surrounding area will be displayed.

5 **For returning to the present location, press the POSITION button.**

Hint

If the latitudinal and longitudinal data inputted do not exist in the map disc, a map will not be displayed, the message "Designated location is not found" will appear and the display will return to the input screen.

SEARCHING FOR A GEOGRAPHICAL POINT FROM A REGISTERED LOCATION Saved Points List

A geographical point can be searched for from locations registered in advance. Registering locations used often renders setting destinations easy.

Register the location in advance.

☞ See p.63 to 65, "About geographic point registration".

1 **Press the MENU button.**

2 **Select Saved Points List from the SEARCH drop-down menu and press the ENTER button.**

3 **Move the cursor vertically, select the geographical point from the list and press the ENTER button.**

: A map of the surrounding area will be displayed.

4 **For returning to the present location, press the POSITION button.**

SEARCH OR DELETE THE GEOGRAPHICAL POINT FROM RECENT DESTINATIONS Recent Distination

Destination surrounding area maps recently set can be displayed. This operation is useful when wanting to go again to an already set destination.

1 **Press the MENU button.**

2 **Select Recent Distination from the SEARCH drop-down menu and press the ENTER button.**

3 **DELETING ALL REGISTERED GEOGRAPHICAL POINTS**

① Select Delete All and press the ENTER button.

② Select Yes and press the ENTER button.

All registered geographical points are deleted and the display returns to the menu screen.

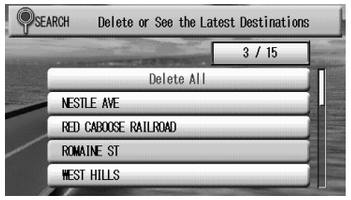
NAVI

SEARCHING FOR A GEOGRAPHICAL POINT (6)

DELETING 1 REGISTERED GEOGRAPHICAL POINT

① **Select the point to be deleted and press the ENTER button.**

Deleting [ROMAINE ST]



② **Select Delete Point and press the ENTER button.**

③ **Select Yes and press the ENTER button.**

: The selected point is deleted and the display returns to the list of recent destinations.

④ **After completing,**

press the POSITION button to return the screen to the present location map.

Press the MENU button to return to the menu screen.

DISPLAYING THE CORRESPONDING MAP FOR A GEOGRAPHICAL POINT

① **Select the point to be viewed and press the ENTER button.**

Displaying map [ROMAINE ST]

② **Select Display Map and press the ENTER button.**

The surrounding area map of the selected point is displayed.

Hint

Set destinations are automatically registered from the newest to the oldest for up to 20 locations.

POINTS OF INTEREST CATEGORIES (1)

AIRPORT		EXHIBITION/CONFERENCE CENTER	
AMUSEMENT PARK		FERRY TERMINAL	
ATM		GAS STATION	
AUTO REPAIR		GOLF COURSE	
AUTOMOBILE ASSOCIATION		GROCERY STORE	
BANK		HISTORICAL MONUMENT	
BORDER CROSSING		HOSPITAL	
BUS STATION		HOTEL OR MOTEL	
BUSINESS FACILITY		LIBRARY	
CAR DEALERSHIP		LIGHT RAIL STATION	
CASINO		MARINA	
CITY HALL		MOTORCYCLE DEALERSHIP	
COMMUNITY CENTER		MUSEUM	
COURT HOUSE		NAMED PLACE	

POINTS OF INTEREST CATEGORIES (2)

*Some areas may not contain all categories.

PARK AND RIDE		SCHOOL	
PARKING GARAGE		SHOPPING CENTER/MALL	
PARKING LOT		SKI RESORT	
PARKS & RECREATION		STADIUM/ARENA	
POLICE STATION		THEATER	
RAILWAY STATION		TOURIST ATTRACTION	
RENTAL CAR FACILITY		TOURIST OFFICE	
REST AREA		UNIVERSITY OR COLLEGE	
RESTAURANT		WINERY	

FOOD TYPE

American	Filipino	Japanese	Swiss	Fast food			
Austrian	French	Korean	Thai	Sandwich			
Belgian	German	Mexican	Turkish	Seafood			
British	Greek	Polish	Vietnamese	Steak House			
Canadian	Hungarian	Portuguese					
Chinese	Indian	Russian					
Dutch	Italian	Spanish					

REGISTERING YOUR HOME

SET THE HOME ADDRESS

Make sure to register your home first on the list of reistered points. Also, registering your home enables home route searches (reference route search from the present location to your home).

☞See p.103, “Searching for a way home”.
See p.67, “Quick route search”.

The registered content is stored in the unit’s memory which remains intact even if changing the map disc.

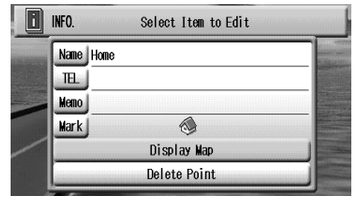
1 Align the cursor with the point you want to register, and then press the ENTER button.

Selecting the most detailed map reduces the positioning error.

2 Select the Set to the Home and press the ENTER button.

3 Select Yes and press the ENTER button.

4 If you select Now, Select Item to Edit will be displayed.

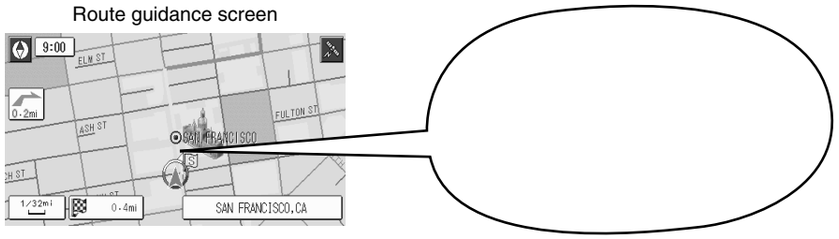


To register the items, See p.63, “About geographic point register”.

NAVI

When setting a route, the unit searches for a reference route from the departure location to the destination based on the registered conditions and the map disc data and displays a map on the screen. (This screen is called the route guidance screen.) By using this reference route to guide you while you drive, you'll get to your destination.

Route guidance screen



Route setting is mainly effectuated as per the following 3 methods.

Quick route search

- Align the cursor with the destination and press the Q.ROUTE button to display a reference route from your present location to the destination.
- When displaying the present location, press the Q.ROUTE button to display a reference route from your present location to your home.

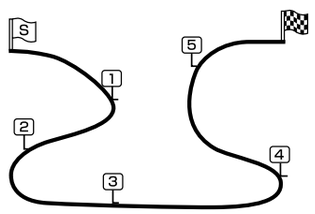
* Registering the location of your home in advance is required.

☞See p.70, "About the quick menu".
☞See p.84, "Registering your home".

Single-route search/Multi-route search

☞See p.89 to 95

- You can select any desired location as the departure point.
- Locations you want to go on the way (waypoints) or roads you want to use on your trip can be registered. (Up to 5 items)
- Setting waypoints disables the multiple search operation.
- Selecting the multiple route search operation initiates a simultaneous search for 3 reference routes. View the displayed routes and select the best one for you.



Home route search

Search for a reference route from the present location to your home.

* Registering the location of your home in advance is required.

☞See p.70, "About the quick menu".
☞See p.84, "Registering your home".

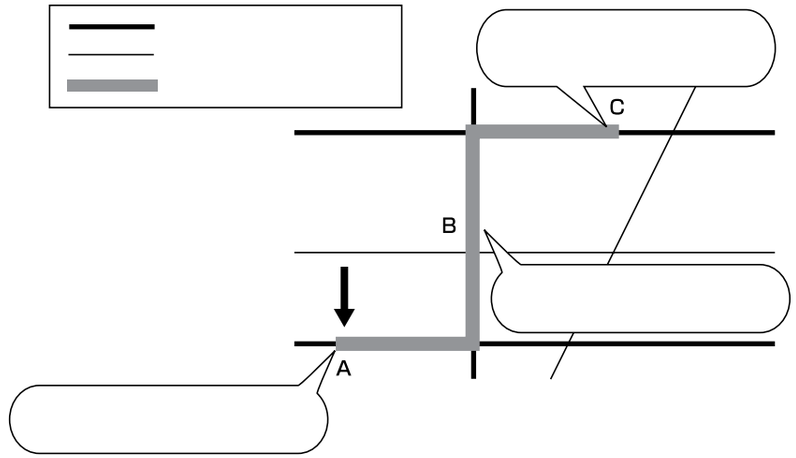
* The reference route from the present location to your home can be found using a quick route search. ☞See p67, "Quick route search".

Hint

- Reference routes vary depending on the map disc. The shortest route is not always selected.
- The search conditions (Faster Route, Shorter Route, Optimal, Use Ferries, Check Highway etc.) can be modified using **Preferred Route** in the ROUTE item of the menu.
  See p.105, "Modifying route conditions".
- Modifications can also be made using **New Route** (See p.91 to 95) and **Current Route** (See p.96 to 98) in the ROUTE item.

⚠CAUTION

Because of changes in traffic conditions, the reference route provided by the unit may not be actually made available. In such a case, proceed with your trip according to the actual traffic conditions.



- Because the search data stored in the map disc varies, the reference routes provided will differ depending on the disc used even if the departure/waypoint/destination points and search conditions are the same.

SINGLE-ROUTE/MULTI-ROUTE SEARCH (1)

ROUTE SETTING PROCEDURES

Register the destination point

↓

Register the departure point — Registration is required if the departure point is different from the present location.

Register the waypoint — Register the waypoints you want to go to on the way and roads you want to take on your trip. (Up to 5 items)

↓

Select either **Faster Route**, **Shorter Route**, or **Optimal**.

☞See p.91, “New route”.
See p.93, “Settable search conditions”.

Select the search conditions — Select either **Calculation Start** (1 reference route is searched for) or **3 Route Calculation** (3 reference routes are searched for, select the best one for you).

* If having set a waypoint(s), **3 Route Calculation** will not appear.

☞See p.28, “Multiple route search”.
See p.92, “New route”.

↓

Execute search — The unit will search for reference routes based on the registered items (destination/departure/waypoint), the search conditions and the map disc data.

↓

Start route guidance — To stop route guidance, see p.104, “Pause route guidance”.

Hint

- If setting the present location as the departure point, verify the display of the actual present location prior to setting the route.
- If you select ✔ at **Check Highway** from **Preferred Route** and registering departure/waypoint/destination point adjacent to highways and local roads, a verification message will appear asking whether you want to set highways in your route. To register highways, select **Yes**, to register local roads, select **No** and press the ENTER button.
- Reference routes vary depending on the map disc. The shortest route may not always be selected.
- When effectuating a new route search, the previously searched for reference route is deleted. To save reference routes in the memory, refer to p.100 “Saving the present route”.
- The search conditions (**Faster Route**/**Shorter Route**/**Optimal**/**Use Ferries**/**Check Highway**, etc.) are modifiable using **Preferred Route** in the ROUTE item of the menu. ☞See p.105, “Modifying route conditions”.

Settable search conditions

- **Faster Route**
  Search for a route prioritizing highways .
- **Shorter Route**
  Search for a route prioritizing the shortest driving distance possible.
- **Optimal**
  The navigation unit searches automatically.

Hint

- Either **Faster Route**, **Shorter Route** or **Optimal** can be displayed.
- When displaying **Shorter Route**, the unit may lead you to drive on narrow roads only or get on and off highways.
- Even if searching under **Shorter Route**, the unit may prioritize basic roads near the departure and destination points that are easy to drive on for safety reasons and not provide the route with the shortest distance to your destination.

⚠CAUTION

Changes in traffic conditions may render the reference route provided by the unit unusable. In such a case, proceed with your trip in accordance with the actual traffic conditions.

REGISTER THE DESIRED DESTINATION POINT AND SET THE

A destination can be registered to search for a location using various methods.

1 **Press the MENU button.**

2 **Select New Route from the ROUTE drop-down menu and press the ENTER button.**

< **Stopping a route search**
Press the MENU button.

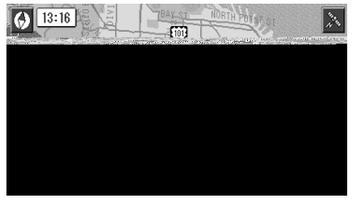
6 **Select Calculation Start or 3 Route Calculation and press the ENTER button.**

: A route search is initiated.

See p.93, “About the display after a route search”.

Selecting **3 Route Calculation** and pressing the ENTER button will enable the selection of **Route A**, **Route B** and **Route C**. Select the route using the Joystick (↕) and press the ENTER button.

Route guidance screen



* Selecting **3 Route Calculation** will disable all keys other than those used to select one of the routes.

Hint

- To stop route guidance, refer to p.104, “Pausing route guidance”.
- For a description of the items appearing on the route guidance screen, see p.57, “How to view the map screen”.
- The duration of your trip is an estimation based on a speed of 50mph for highways, 30mph on national/state roads, 25mph on local roads and 10mph on other roads. This time does not correspond with your vehicle’s actual speed.
- Save the desired route in the memory. See p.100, “Saving the present route”.
- Multiple-route searches take more time to effectuate than single-route searches.
- The search conditions (**Faster Route** / **Shorter Route** / **Optimal**) set here will be used again for the next route search.
  See p.105, “Modify route search conditions”.
- If having set a waypoint(s), **3 Route Calculation** will not appear.

NAVI

SINGLE-ROUTE/MULTI-ROUTE SEARCH (3)

Settable search conditions

- **Faster Route**
  Search for a route prioritizing highways .
- **Shorter Route**
  Search for a route prioritizing the shortest driving distance possible.
- **Optimal**
  The navigation unit searches automatically.

Hint

- Either **Faster Route**, **Shorter Route** or **Optimal** can be displayed.
- When displaying **Shorter Route**, the unit may lead you to drive on narrow roads only or get on and off highways.
- Even if searching under **Shorter Route**, the unit may prioritize basic roads near the departure and destination points that are easy to drive on for safety reasons and not provide the route with the shortest distance to your destination.

About the display after a route search

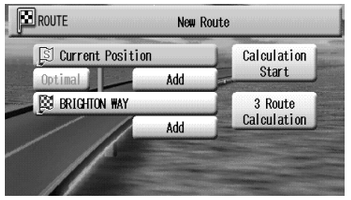
- When the route search is complete, the recommended route will appear as a thick purple or green line (as per the setting).
  See p.120, “Select set route color”.
  When having reached the area near your point of destination, the route guidance will automatically be completed.
- The and marks appearing on the screen indicate the departure and the destination respectively.

REGISTERING A DEPARTURE POINT OTHER THAN THE PRESENT LOCATION

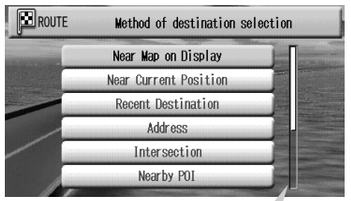
Register the departure point prior to selecting Calculation Start or 3 Route Calculation in step 6 (p.92).

① Proceed as described in steps 1 to 5 (p.91).

② Select Current Position and press the ENTER button.



③ Select the search method for the destination point map from the displayed menu and press the ENTER button (See p.71 to 81).



Pressing down on the Joystick (↕) will display the continuation. Press the Joystick (↔) or the ▼/▲ buttons to go to the next/previous page.

④ Display the destination point map, align the cursor with the destination point and press the ENTER button.

Selecting the most detailed map will minimize the positioning error!

⑤ Go to step 6 (p.92).

Hint

If geographic point setting is already completed in step ③, selecting **Delete this point** and pressing the ENTER button will display a confirmation message asking you whether you want to delete the point. Select **Yes** and press the ENTER button to make the present destination point the departure point (if having registered a waypoint(s), this point will be the point registered that proceeds the present location). By selecting **Recent Destination** and pressing the ENTER button, you can search for geographic points from a list of recently set destination points and waypoints.

* The unit automatically stores up to 20 set destination and waypoints in the memory in the order of newest to oldest.

SINGLE-ROUTE/MULTI-ROUTE SEARCH (4)

ADDING WAYPOINTS

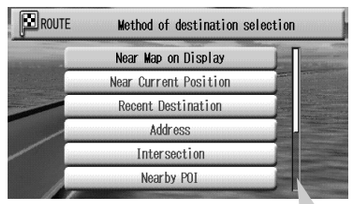
Adding locations as waypoints on the way to your destination and roads you want to drive on will set a route with respect to those specifications. Up to 5 items can be added.
(Follow steps 1 to 5 (p.91)).

Add a waypoint(s) prior to selecting Calculation Start or 3 Route Calculation in step 6 (p.92).

① Proceed as described in steps 1 to 5 (p.91).

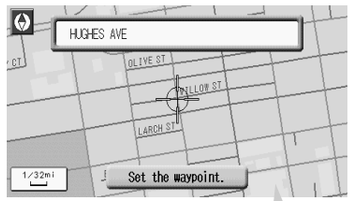
② Select Add and press the ENTER button.

③ Select the search method for the waypoint map from the displayed menu and press the ENTER button (See p.71 to 81).



Pressing down on the Joystick (↕) will display the continuation. Press the Joystick (↔) or the ▼/▲ buttons to go to the next/previous page.

④ Display the waypoint map, align the cursor with the waypoint and press the ENTER button.



Selecting the most detailed map will minimize the positioning error!

To modify or delete this waypoint, select it and press the ENTER button.

⑤ Set additional waypoints as per the steps above.

⑥ Go to step 6 (p.92).

Hint

- If having set a waypoint(s), **3 Route Calculation** will not appear.
- If the distance to your destination is great, waypoint registration is recommended. Not doing so may render the intersection enlargement and voice guidance ineffective.
- If the distance between waypoints is too short, the transit route search function may not function properly.
- Select **Recent Destination** in step ③ to set geographical points from a list of recently set destinations and waypoints.

MODIFYING A ROUTE (1)

CHANGE THE SET DESTINATION OR DEPARTURE, CHANGE, ADD OR DELETE WAYPOINTS OR CHANGE THE SEARCH CONDITIONS
Current Route

The set route can be modified and a new route search can be effectuated.

1 **If modifying a route stored in the memory, retrieve that route. (The retrieved route becomes the "Current Route".)**

☞ See p.109, "Retrieve stored routes".

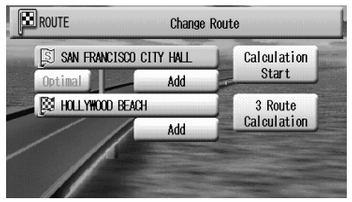
2 **Press the MENU button.**

3 **Select Current Route from the ROUTE drop-down menu and press the ENTER button.**

4 **Select Change and press the ENTER button.**

CHANGING THE DEPARTURE POINT

① **Select SAN FRANCISCO CITY HALL and press the ENTER button.**



② **Register the new departure point.**

See p.94, "REGISTERING A DEPARTURE POINT OTHER THAN THE PRESENT LOCATION" for the registration method.

CHANGING THE DESTINATION

① **Select HOLLYWOOD BEACH and press the ENTER button.**

② **Register the new destination point.**

See p.94, "REGISTERING A DEPARTURE POINT OTHER THAN THE PRESENT LOCATION" for the registration method.

MODIFYING A ROUTE (2)

CHANGING/DELETING WAYPOINTS

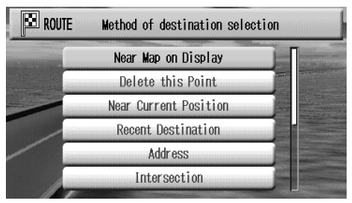
① Select the waypoint to be changed/deleted and press the ENTER button.

Example of selecting waypoint 1.

② IF CHANGING

Register a new waypoint(s).

See p.95, " ADDING WAYPOINTS " for the registration method.

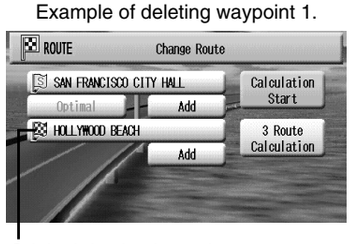


③ IF DELETING

Select Delete this point and press the ENTER button.

Select Yes and press the ENTER button.

Example of deleting waypoint 1.



Original destination point.

ADDING WAYPOINTS

① To add a location, select Add and press the ENTER button.

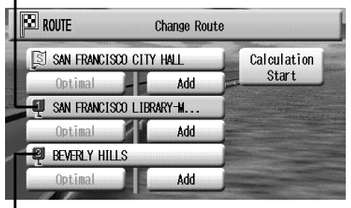
Example of adding a waypoint between the departure point and waypoint 1.

② Register a waypoint.

See p.95, " ADDING WAYPOINTS " for the registration method.

* Up to 5 waypoints can be registered.

Added waypoint



Original waypoint

5 Change search conditions.

CHANGING SEARCH CONDITIONS

① Select the search conditions you want to change and press the ENTER button.

② Because pressing the ENTER button effectuates a search condition modification, display the search conditions you want to set.

To make a search condition modification, press the ENTER button again.

Example for "Faster Route".

③ Select Calculation Start or 3 Route Calculation and press the ENTER button.

If having selected **Calculation Start**, the route guidance screen appears and route guidance is initiated when the route search is complete. If having selected **3 Route Calculation**, 3 route selection screens appear. Select the desired route and press the ENTER button to move the display to the route guidance screen and start route guidance.

See p.91, "Register the desired destination point and set the search conditions".

Hint

- If having set a waypoint(s), **3 Route Calculation** will not appear.
- Save the desired routes in the memory.
  See p.100, "Saving the present route".
- When the 3 route selection screen is displayed, buttons other than the ENTER button are disabled.
- If having modified a route retrieved from the memory, the stored route cannot be changed.
- To stop route guidance, refer to p.104, "Pause route guidance".

DISPLAYING THE PRESENT ROUTE

DISPLAYING THE PRESENT ROUTE
Map

The recommended route resulting from the route search (from the departure point to the destination) can be verified by displaying it on the screen.

Set the destination and conduct a route search in advance.

☞See p.91, “Register the desired destination point and set the search conditions”.

1 **Press the MENU button.**

2 **Select Current Route from the ROUTE drop-down menu and press the ENTER button.**

3 **Select Map and press the ENTER button.**

: All recommended routes are displayed.

4 **Return to the menu screen.**
Press the ENTER button.

Hint

- Even when in 3D View, all route displays are shown as planimetric map screens.
- The route may not fit in only one screen.

STORING/DELETING THE PRESENT ROUTE (1)

SAVING THE PRESENT ROUTE
Save

Up to 20 geographic points and search conditions for set routes can be stored. These stored routes (registered routes) can be displayed on a map showing the entire route, can be retrieved to show a route simulation and can serve for route guidance.

☞See p.109 to 111, “Saved Routes List”.

1 **Press the MENU button.**

2 **Select Current Route from the ROUTE drop-down menu and press the ENTER button.**

3 **Select Save and press the ENTER button.**

: The message “Saved Current Route.” is displayed.

Press the POSITION button to return the screen to the present location map.

Hint

- After setting the route, that new route will be automatically deleted if initiating a new route search, changing or re-effectuating a search for the route (detour, reroute) or retrieving a stored route. Store the route you want to save in the memory.
- If at step **3** there are already 20 set route geographical points and search conditions, the message “Full data” will appear. Press the ENTER button and select Saved Routes List of the ROUTE item and delete unnecessary data.

☞See p.111, “Delete a registered route”.

NAVI

STORING/DELETING THE PRESENT ROUTE (2)

DELETING THE PRESENT ROUTE
Delete

The presently set route can be deleted.

1 **Press the MENU button.**

2 **Select Current Route from the ROUTE drop-down menu and press the ENTER button.**

3 **Select Delete and press the ENTER button.**

4 **Select Yes and press the ENTER button.**

: The message “Deleted the route” is displayed.

Press the POSITION button to return the screen to the present location map.

Hint

The following instances will result in the automatic deletion of the present route:

- When effectuating a quick route search, single/multiple route search or a home route search and setting a new route.
- When changing a route.
- When re-effectuating a search for a route (detour, reroute).
- When retrieving a stored route.

VIEWING ROAD INFORMATION WITH THE PRESENT ROUTE

VIEWING ROAD INFORMATION
Route Information Display

While driving, you can view highway and road names, interchange (IC), junction (JCT) and parking area (PA) names as well as EXIT information and distances between each point.

☞See p.82 and 83, “Point of interest categories”.

1 **Press the MENU button.**

2 **Select Map Display from the SETTING drop-down menu and press the ENTER button.**

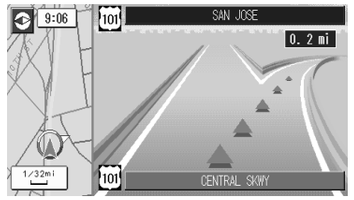
3 **Select Right Display and press the ENTER button.**

4 **Select Route Information Display and press the ENTER button.**

✓ is displayed.

5 **Press the POSITION button on the remote control and, by pressing the DUAL MAP button, the screen toggles between 1-screen and 2-screen display.**

2-screen image



2-screen (link point image)

Hint

- If the route resulting from the search contains no highways, Route Information will not appear. To verify highway information, search for a route that includes highways.
☞See p.105, “Modifying route search conditions”.
- There may be instances when no information about the highways contained in the route is not displayed.

NAVI

SEARCHING FOR A WAY HOME

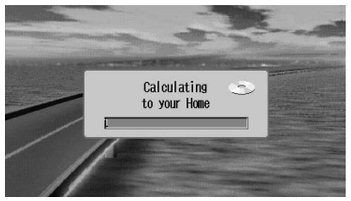
SEARCHING FOR A WAY HOME
Route to Home

Reference routes from the present location to the pre-registered location of your home can be searched.

1 **Press the MENU button.**

2 **Select Route to Home from the ROUTE drop-down menu and press the ENTER button.**

Route search initiated



Press the MENU button to end search.

Route guidance screen

Hint

- To use this function, it is necessary to register the location of your home in advance.
  ☞ See p.70, “About the quick menu”.
  ☞ See p.84, “Registering your home”.
- Prior to setting a route, verify that the actual present location is displayed.
- Effectuating a search for a route home will delete the “Current Route” unless it is stored in the memory.
  ☞ See p.100, “Saving the present route”.
- The route home can be searched for by pressing the Q.ROUTE button when the screen is displaying the present location.
  ☞ See p.67, “Quick route search”.

STOPPING/STARTING ROUTE GUIDANCE

PAUSE ROUTE GUIDANCE
Stop Route Guidance

The voice guide and screen display of the route guidance operation can be temporarily erased when route guidance is deemed unnecessary such as when driving along a familiar road.

1 **Press the MENU button.**

2 **Select Stop Route Guidance from the ROUTE drop-down menu and press the ENTER button.**

QUICK MENU
Press the ENTER button on the present location display screen.
⇩
Stop Route Guidance

When route guidance is paused, **Start Route Guidance** appears on the screen.

Hint

- Even if route guidance is stopped, the search result route is stored.
- When effectuating a route search, route guidance will automatically start.
- To disable route guidance, effectuate the above mentioned operation.

START ROUTE GUIDANCE
Start Route Guidance

Route guidance for the present route is initiated (for the route most recently set; if having retrieved a stored route after setting a route, route guidance will be initiated using the route most recently retrieved from the memory).

1 **Press the MENU button.**

2 **Select Start Route Guidance from the ROUTE drop-down menu and press the ENTER button.**

During route guidance, if the MENU button is pressed, **Stop Route Guidance** will appear.

QUICK MENU
Press the ENTER button on the present location display screen.
⇩
Start Route Guidance

NAVI

MODIFYING ROUTE CONDITIONS

MODIFY ROUTE SEARCH CONDITIONS Preferred Route

Change the search conditions for quick/single/multiple/home route searches. (Even search conditions in the route setting process can be modified for single and multiple route searches.)

1 **Press the MENU button.**

2 **Select Preferred Route from the ROUTE drop-down menu and press the ENTER button.**

3 **Select either Faster Route/ Shorter Route/ Optimal and press the ENTER button.**

☑ ... Indicates that the route was set under that condition. To effectuate a change, select the desired condition and press the ENTER button to indicate a ✓ mark.

< **If using ferries**
Select Use Ferries and press the ENTER button to indicate a ✓ mark.
To change, press the ENTER button again to erase the ✓ mark.

< **If checking Highway**
Select Check Highway and press the ENTER button to indicate a ✓ mark.
If the point (departure, waypoint or destination) is near highways, a verification message will appesr.
To change, press the ENTER button again to erase the ✓ mark.

4 **To complete setting…**
press the POSITION button to return the screen to the present location map.
Press the MENU button to return to the menu screen.

Hint

- Even if having set Shorter Route, if the distance between the departure and destination points exceeds 120 miles, a route search may be effectuated prioritizing highways.
- Even if having set “Use Ferries” to include ferry seaways in the route search, should there not exist any such seaways between the departure and destination points (not in the map disc), the search will provide a route over land.
- Even if having set “Use Ferries”, the search result may not include ferry seaways.
- The search conditions set here will be used for the next route search.

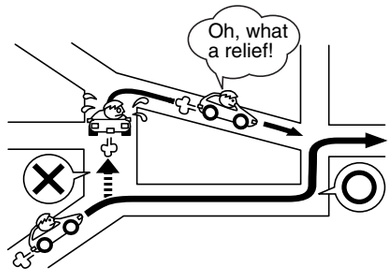
Settable search conditions

- **Faster Route**
  Search for a route prioritizing highways .
- **Shorter Route**
  Search for a route prioritizing the shortest driving distance possible.
- **Optimal**
  The navigation unit searches automatically.

STRAYING OFF THE ROUTE (REROUTE)

STRAYING OFF THE ROUTE Reroute

If having strayed from the set route while route guidance is in progress, a reference route search from the present location to the destination can be made as per the steps below. When rerouting is complete, the old route is deleted and the new route is displayed.



1 **Press the MENU button.**

2 **Select Reroute from the ROUTE drop-down menu and press the ENTER button.**

3 **Select Reroute and press the ENTER button.**

Hint

- If having registered a waypoint(s), a route passing through them is searched for (excluding already passed waypoints).
- If using a retrieved route stored in the memory for route guidance, the stored route cannot be changed.
- Perform rerouting with your vehicle stopped in a safe place. If moving your vehicle during a route search, you may stray away from the search result route when the set route is displayed.
- Do not perform rerouting while driving on a highway, rather, move to a local road and proceed. Rerouting while on a highway may cause the reroute departure point (present location) to be set in the opposite traffic lane due to signal errors from the GPS satellite resulting in a displayed route with a reversed heading.
- The unit can be set to automatically reroute in the event of straying off the set route during route guidance. ☞ See p.118, “Setting auto reroute”.

THE ROAD AHEAD CANNOT BE TAKEN (DETOUR SEARCH)

THE ROAD AHEAD CANNOT BE TAKEN (DETOUR SEARCH) Reroute

In the event the road ahead cannot be taken because of construction work or traffic congestion during route guidance, the present route can be partly modified to provide alternative routes within a 1, 4 or 8 mile range. (Detour search)
When the detour search is complete, the old route is deleted and the new route is displayed.

1 **Press the MENU button.**

2 **Select Reroute from the ROUTE drop-down menu and press the ENTER button.**

3 **Select the detour distance (1 mile Detour / 4 mile Detour / 8 mile Detour) and press the ENTER button.**

Example for an 8 mile detour selection:

Hint

- If route guidance is performed using a route retrieved from the memory, that stored route cannot be changed.
- Perform the detour search with your vehicle stopped in a safe place. If moving your vehicle while the detour search is in progress, you may stray from the search result route when the detour route is displayed.
- Do not perform the detour search while driving on a highway, rather, move to a local road and proceed. Searching for a detour while on a highway may cause the detour departure point (present location) to be set in the opposite traffic lane due to signal errors from the GPS satellite resulting in a displayed route with a reversed heading.
- If there are no other roads or if the alternative route provided by the search result is too long a detour, you may leave the present route displayed as is.
- If having set a waypoint(s), the unit will search for a route passing through it (them). This excludes already passed waypoints.

SAVED ROUTES LIST (1)

RETRIEVE STORED ROUTES
Saved Routes List

Stored routes can be retrieved (route search).

* If the present route is displayed, that route will be deleted and the retrieved route will appear.

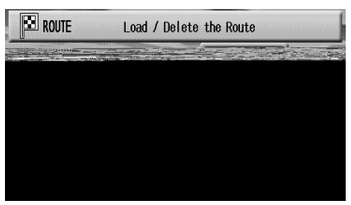
Store the route in advance.
See p.100, “Saving the present route”.

1 **Press the MENU button.**

2 **Select Saved Routes List from the ROUTE drop-down menu and press the ENTER button.**

3 **Select the desired number for retrieval and press the ENTER button.**

4 **Select Load and press the ENTER button.**



5 **Select Yes and press the ENTER button.**

: Route search automatically initiated.

DISPLAY A STORED ROUTE
Saved Routes List

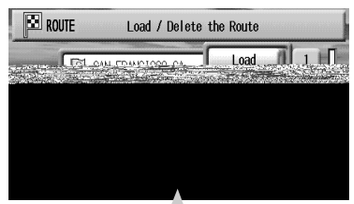
Maps from which geographical points on stored routes are viewable can be displayed temporarily.

1 **Press the MENU button.**

2 **Select Saved Routes List from the ROUTE drop-down menu and press the ENTER button.**

3 **Select the desired number for display and press the ENTER button.**

4 **Select View and press the ENTER button.**



The “Current Route” is not deleted even if having selected a stored route.

5 **When finished viewing… press the ENTER button.**

Hint

To retrieve a stored route, see p.109, “Retrieve stored routes”.

NAVI

DELETE A REGISTERED ROUTE
Saved Routes List

Stored routes can be deleted.

Store the route in advance.
☞See p.100, “Saving the present route”.

1 **Press the MENU button.**

2 **Select Saved Routes List from**

5 **Select Yes and press the ENTER button.**

ROUTE SIMULATION
Route Simulation

You can display the set route on the screen and watch a simulation of the trip on a map. (This is called a route simulation.) If set in advance, this operation is convenient for verifying the whole route ahead of time including intersection enlargement, route information as well as voice guidance prior to your departure.

4 **To end route simulation…**

The route simulation will repeat itself continuously until you press either the POSITION or MENU button.

Press the POSITION button. ➡ **The display returns to the present location map.**

Press the ➡ **This display returns**

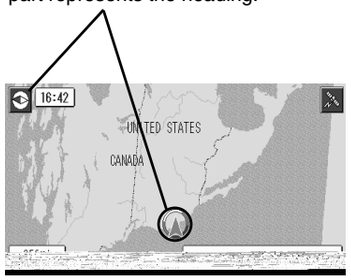
N

CHANGING THE MAIN SCREEN SETTINGS

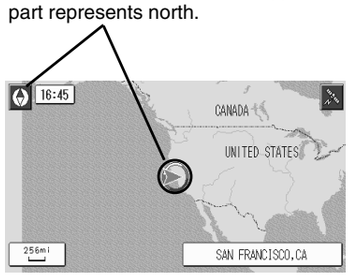
CHANGING THE MAIN SCREEN SETTINGS Map Display

Select for the upper part of the screen to represent either north or the heading or for the screen to be in 3D view.

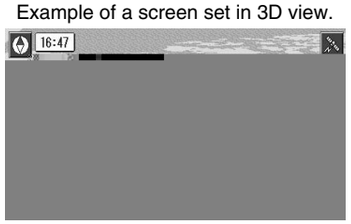
Example of a screen whose upper part represents the heading.



Example of a screen whose upper part represents north.



Example of a screen set in 3D view.



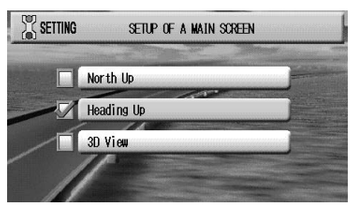
Example **Selecting “Heading Up”**

1 **Press the MENU button.**

2 **Select Map Display from the SETTING drop-down menu and press the ENTER button.**

3 **Select Map Display and press the ENTER button.**

3 **Select Heading Up and press the ENTER button.**



The ✓ display moves and indicates the selected item.

< Press the View button on the remote control to switch the map screens.

5 **To complete setting…**

press the POSITION button to return the screen to the present location map.

Press the MENU button to return to the menu screen.

Hint

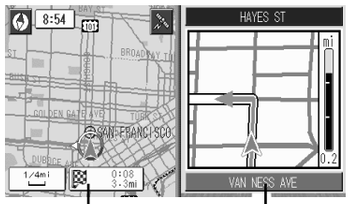
- With the 3D View, the map display direction is always the direction of the heading and cannot be changed.
- When effectuating a single or multiple route search or when modifying a route, the map that appears after registering the destination/waypoint/departure points will be set “North Up”.
- See p.116, “Select the map display method” for selecting the right screen map display method when in 2-screen display (North Up/Heading Up).
- If having set “Heading Up”, you can change for the “North Up” map temporarily while scrolling.
  * Returning to the present location display screen will bring back the “Heading Up” map.
- See p.59 to 61, “Changing the map display” for the characteristics of each map display.

SETTING THE 2-SCREEN DISPLAY (1)

SETTING THE 2-SCREEN DISPLAY

When displaying the present location, you can split the screen in two and show on the right side of the display maps with varying reduction scale levels, intersection enlargement illustrations, route information and other information screens.

Example of an intersection enlargement illustration.



Left screen — Right screen (information screen)

1 **When displaying the present location, press the DUAL MAP button.**

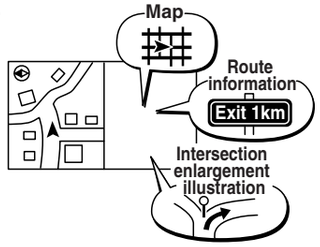
< **To return to full screen display,** press DUAL MAP again.

Hint

- It may take a moment before the 2-screen display is produced.
- The route information and the intersection enlargement illustration are displayed only during route guidance.
- The left screen can have its map display settings and reduction scale changed in the same manner as when in full screen display.
- You cannot switch between 2-screen display and full screen display during a route simulation.

SETTING THE 2-SCREEN DISPLAY CONTENT Map Display

The type of right screen (information screen) for the 2-screen display can be selected.



1 **Press the MENU button.**

2 **Select Map Display from the SETTING drop-down menu and press the ENTER button.**

3 **Select Right Display and press the ENTER button.**

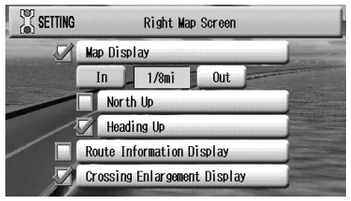
4 **Select the right screen map display method.**

SELECTING THE REDUCTION SCALE

① Select In or Out with the Joystick.

② Press the ENTER button.

Every time the ENTER button is pressed, the reduction scale changes.



SELECT THE MAP DISPLAY METHOD

Select the display method (North Up/ Heading Up) and press the ENTER button.

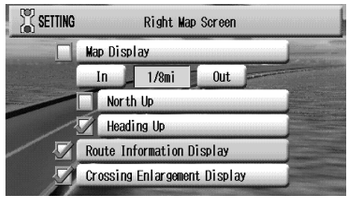
Settings indicated with a ✓ mark are effectuated.

Example of selecting “Heading Up”.

DISPLAY THE ROUTE INFORMATION

When route guidance is in progress after a route search, the road names and distance remaining to the destination, etc. are displayed. Select Route Information Display and press the ENTER button.

A ✓ mark is indicated.



: Indicating a ✓ mark for Route Information Display will automatically erase the ✓ mark for Map Display. If wanting to display the map, select Map Display, press the ENTER button to indicate a ✓ mark.

DISPLAY INTERSECTION ENLARGEMENTS

Crossing Enlargement Display

During route guidance and route simulation,

- **when approaching major intersections, an enlargement illustration is displayed with the name of the intersection as well as an arrow mark showing which direction to turn.**
- **When highway junctions and ramps are approaching, the display shows an illustration guide (junction view) indicating the direction as well as a ▲ mark (lit) showing you the way to turn.** ☞See p.28, “Junction guide”.

NAVI

SETTING THE 2-SCREEN DISPLAY (2)

Select Crossing Enlargement Display and press the ENTER button.

A ✓ mark is indicated.

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Hint

- If signal reception from the GPS satellite is cut rendering accurate positioning impossible or if there is a significant error in the GPS data, the intersection enlargement function will not operate properly. Also, if the distance between intersections is too short, this function will be disabled.
- Even if having placed a ✓ mark in Crossing Enlargement Display, the display will not appear without having approached the intersection.
- Because the display is based on the data stored on the map disc,
  – intersection enlargement display and junction view will not be effectuated at intersections and junctions not available in the stored data.
  – depending on the intersection, the intersection name may not be indicated.
  – because the data in the map disc is only as updated as the time of purchase, the displayed content may differ from actual conditions.
- The junction views in the map disc included with the unit correspond to only some highways.
- When intersections are enlarged, the right screen changes into an intersection enlargement illustration/junction view.

5 To complete setting…

press the POSITION button to return the screen to the present location map.

Press the MENU button to return to the menu screen.

CHANGING THE ROUTE GUIDANCE SCREEN SETTINGS (1)

1 **Press the MENU button.**

2 **Select Route Guidance from the SETTING drop-down menu and press the ENTER button.**

3 **Change the route guidance settings.**

SETTING AUTO REROUTE
Route Guidance

Setting Auto Reroute in Route Guidance of the SETTING menu will enable the unit to re-effectuate a reference route search automatically from your present location to the destination in the event you stray off the set route while route guidance is in progress.

① **Select Auto Reroute.**

Pressing down on the Joystick (↕) will display the continuation. Press the ▼ and ▲ button to go to the next/previous page.

② **Press the ENTER button to place a ✓ mark.**

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Example of setting auto reroute.

Hint

- If a waypoint(s) is set, the unit will search for a route passing through it (them). (Excluding already passed waypoints.)
- To disable auto reroute, press the ENTER button as described in ② of step **3** and remove the ✓ mark.

NAVI

CHANGING THE ROUTE GUIDANCE SCREEN SETTINGS (2)

SETTING VOICE GUIDANCE
Route Guidance

The unit can tell you vocally when you are arriving at destinations or waypoints and in what direction to turn while route guidance or route simulation is in progress.

Select **Voice Guidance** and press the ENTER button to indicate a ✓ mark.

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Hint

- See p.189, “About the voice guidance” for details pertaining to voice guidance.
- Should accurate positioning be rendered impossible due to a lapse in GPS satellite signal reception or should the GPS data error be significant, the voice guidance function will be disabled. Also, if the distances between continuous intersections are too short, there may be instances when the unit will not provide voice guidance for turns.

DISABLING VOICE GUIDANCE

Press the ENTER button again to remove the ✓ mark.

ADJUSTING THE VOLUME

Adjust the volume using the volume adjustment button.

MUTE THE VOICE

Press the MUTE button.

“MUTE” will appear. Press again and “MUTE” will disappear and the voice will return.

SELECT THE SET ROUTE COLOR
Route Guidance

Select the desired color (purple/green) and press the ENTER button.

☑ ... Indicates that this condition is set.

Example of selecting “green”.

SELECT TO ENABLE/DISABLE SIMPLE TURN INDICATIONS
Route Guidance

During route guidance initiated after a route search, the unit can provide indications on the screen showing you in which direction to turn every time you approach an intersection where a turn is necessary.

① **Select Simple Right & Left Turn.**

② **Press the ENTER button.**

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Example of setting “enable”.

SELECT TO ENABLE/DISABLE THE CHECKERED FLAG DISPLAY
Route Guidance

① **Select Eliminate Goal Mark.**

② **Press the ENTER button.**

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Example of setting “disable”.

Hint

When having reached your destination, the recommended route is deleted from the screen along with the checkered flag mark ( ).

NAVI

CHANGING THE ROUTE GUIDANCE SCREEN SETTINGS (3)

SELECT TO ENABLE/DISABLE DSPLAY EST. TIME TO DESTINATION ROUTE GUIDANCE Route Guidance

① **Select** Dsplay Est. Time To Destination

② **Press the** ENTER **button.**

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

Example of setting “enable”.

4 **To complete setting…**

press the POSITION **button to return the screen to the present location map.**

Press the MENU **button to return to the menu screen.**

Hint

- Highways appear red even if having selected purple/green for the route color setting.
- Placing a ☑ mark for **Simple Right & Left Turn** will enable a display indicating the distance remaining until the next guide point as well as a turning indication. (The distance indicated is a reference guide and may differ from the actual distance).
☞See p.57, “How to view the map screen”.
- Estimated time to destination
The unit indicates an estimated time to destination based on a speed of 50mph for highways, 30mph for national/state roads, 25mph for local roads and 10mph for other roads. This function does not correspond to the vehicle’s actual speed.

INDICATING THE STREET NAME

INDICATING THE STREET NAME System Setting

1 **Press the** MENU **button.**

2 **Select** System Setting **from the** SETTING **drop-down menu and press the** ENTER **button.**

3 **Select** Display Road Name.

4 **Press the** ENTER **button to place a ✓ mark.**

☑ ... Indicates that this condition is set. To change, press the ENTER button again to delete the ✓ mark.

5 **Press the** POSITION **button to show the present location map.**

Street names (or names of the surrounding area)

- If street names cannot be indicated, names of the surrounding area appear.
- Should the name of the street now being driven on not be displayed due to a GPS satellite signal error, the name of another street nearby may appear.

Hint

To disable the indication, press the ENTER button again as described in step **4** to remove the ✓ mark.

NAVI

CHANGING THE UNIT OF DISTANCE, THE COLOR OF THE MAP AND THE PRESENT LOCATION MARK

CHANGING THE COLOR OF THE MAP AND THE PRESENT LOCATION MARK System Setting

You can select the color of the map (day, night, auto) and the present location mark (red, yellow).

1 **Press the MENU button.**

2 **Select System Setting from the SETTING drop-down menu and press the ENTER button.**

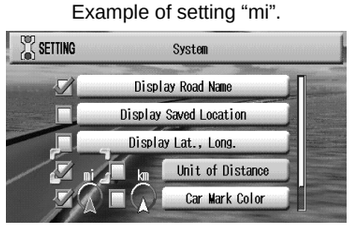
3 **Change the settings.**

SELECT THE UNIT OF DISTANCE (mi/km)

Select the desired mark (mi/km) and press the ENTER button.

☑ ... Indicates that this condition is set.

Example of setting “mi”.

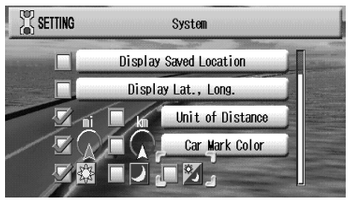


SELECT THE MAP COLOR (DAY/NIGHT/AUTO)

Select the desired color (day/night/auto) and press the ENTER button.

☑ ... Indicates that this condition is set.

Example of setting “auto”.



QUICK MENU

Press the ENTER button on the map screen.

⇩

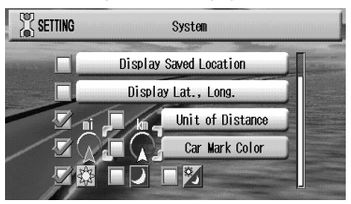
Day Mode **Night Mode** **Auto Change**

SELECT THE PRESENT LOCATION MARK (RED/YELLOW)

Select the desired color (red/yellow) and press the ENTER button.

☑ ... Indicates that this condition is set.

Example of setting “yellow”.



DISABLING THE REGISTERED POINT MARK DISPLAY

DISABLING THE REGISTERED POINT MARK DISPLAY System Setting

Registered point marks can be temporarily cleared from the map.

1 **Press the MENU button.**

2 **Select System Setting from the SETTING drop-down menu and press the ENTER button.**

3 **Select Display Saved Location.**

4 **Press the ENTER button to remove the ✓ mark.**

The ✓ mark is removed.

5 **To complete setting…**

press the POSITION button to return the screen to the present location map.

Press the MENU button to return to the menu screen.

DISPLAY THE MARK ON THE MAP

As described in step 4, press the ENTER button again to place a ✓ mark.

NAVI

DISPLAYING LATITUDINAL AND LONGITUDINAL COORDINATES

DISPLAYING LATITUDINAL AND LONGITUDINAL COORDINATES
System Setting

Latitudinal and longitudinal coordinates can be displayed on the map screen (excluding present location display).

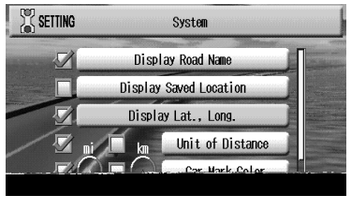
1 **Press the MENU button.**

2 **Select System Setting from the SETTING drop-down menu and press the ENTER button.**

3 **Select Display Lat., Long.**

4 **Press the ENTER button to place a ✓ mark.**

☑ ... Indicates that this condition is set.
To change, press the ENTER button again to delete the ✓ mark.



5 **Press the RETURN button twice to return to the map screen and move the cursor key.**

Latitudinal and longitudinal coordinates appear representing geographic positions indicated by the cursor.

Ex. N 37°47′00″ W 122°25′31″

Latitude/longitude display Cursor

Hint

To disable the indication, press the ENTER button again as described in step 4 to remove the ✓ mark.

CLOCK SETTING

SELECT THE Clock Mode and Clock Size
Clock Setting

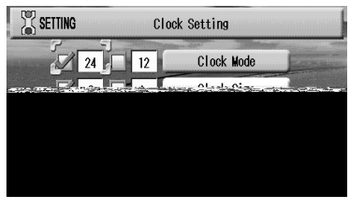
1 **Press the MENU button.**

2 **Select Clock Setting from the SETTING drop-down menu and press the ENTER button.**

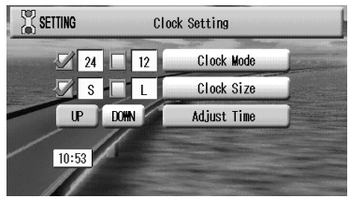
3 **Select the desired type (24/12, S/L) and press the ENTER button.**

☑ ... Indicates that this condition is set.

Example of setting “24”, and “S”.



4 **Press the UP/DOWN button to adjust time.**



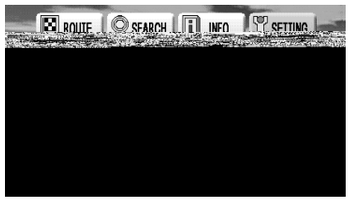
USING TRACKS (1)

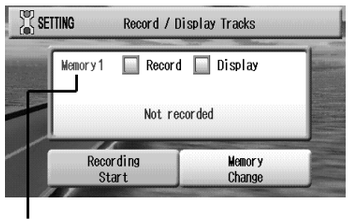
USING TRACKS Save Route Track

Place markers along the road already followed and record them.
This function is helpful when wanting to verify a road already traveled on or when wanting to use the same road again.
This unit's recording function is separated into 3 groups (memory 1, memory 2 and memory 3).

1 **Press the MENU button.**

2 **Select Save Route Track from the SETTING drop-down menu and press the ENTER button.**

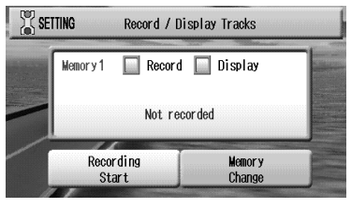




Group presently selected

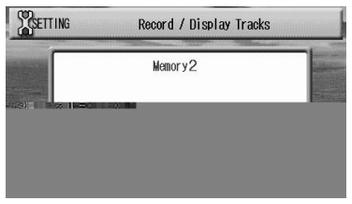
To record tracks in the presently selected group, proceed as described in step 5 .
To record tracks in another group, proceed as described in step 3 .

3 **Select Memory Change and press the ENTER button.**



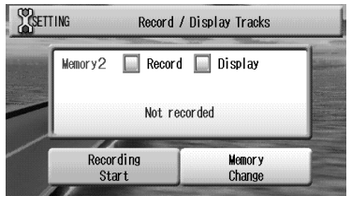
4 **Select the group in which to record tracks (Track Memory 1 / Track Memory 2 / Track Memory 3) and press the ENTER button.**

Example of selecting "memory 2".



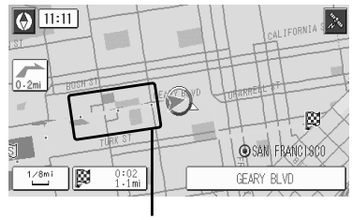
5 **Select Recording Start and press the ENTER button twice.**

The present location map is shown and path recording starts.



Start recording tracks

When the present location mark moves, the tracks appear.
This also starts the track registration function.



Track display

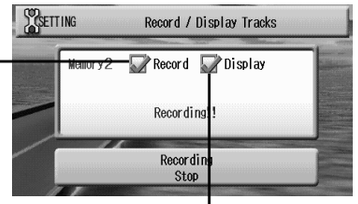
Hint

- About 1000 tracks can be recorded for each group. If the number of tracks exceeds that capacity, the oldest tracks in the group will be deleted automatically and the new tracks will be recorded.
- Tracks can only be displayed one group at a time (present track memory). Also, track colors vary by group (memory 1: black, memory 2: green, memory 3: blue).

DISABLING TRACK RECORDING FUNCTION

As described in step 2 (p.127), check if the cursor is Recording Stop and press the ENTER button twice.

The present map is displayed.



A track is presently recorded in memory 2. (✓ mark appears)

The track presently recorded in memory 2 is being displayed on the map. (✓ mark appears)

DISPLAY THE DESIRED TRACK

Display the tracks of the selected group (memory 1/memory 2/memory 3) on the map.

* Only one group can be displayed at a time. Also, only displaying a track doesn't record it.

① **Proceed as described in step 1 to 3 (p.127) to select the desired group (Track Memory 1 / Track Memory 2 / Track Memory 3) and press the ENTER button.**

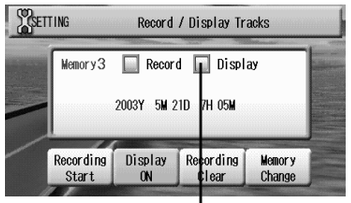
Select

NAVI

USING TRACKS (2)

Example of selecting “memory 3”.

Select **Display ON**



When the tracks in memory 3 are displayed on the map, a ✓ mark appears here.

② **Select Display ON and press the ENTER button twice.**

The present map is displayed.

DISABLING TRACK DISPLAY

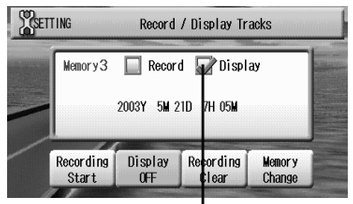
The tracks disappear from the map.

* Disabling the display doesn’t erase the tracks from the memory.

① **Proceed as described in step 1 and 2 (p.127), select Display OFF and press the ENTER button twice.**

The present map is displayed.

Select **Display OFF**



This indicates that presently the memory 3 tracks are being displayed on the map.

Hint

- Track display cannot be disabled during track recording.
- Pressing **Display ON** to retrieve a group will automatically disable track display.

DELETING TRACKS

① **Press the MENU button.**

② **Select Save Route Track from the SETTING drop-down menu and press the ENTER button.**

☞ See step 1 and 2 . (p.127)

To delete the presently selected group tracks, go to step ⑤.

To delete the tracks of another group, go to step ③.

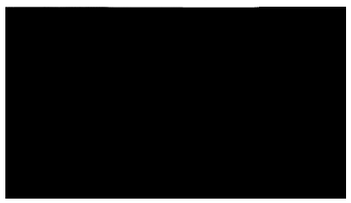
③ **Select Memory Change and press the ENTER button.**

☞ See step 3 . (p.127)

④ **Select the group to be deleted (Track Memory 1 / Track Memory 2 / Track Memory 3) and press the ENTER button.**

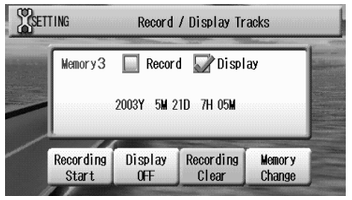
Select

Example of selecting “memory 3”.



⑤ **Select Recording Clear and press the ENTER button.**

Select **Recording Clear**



⑥ **Select Yes and press the ENTER button.**

NAVI

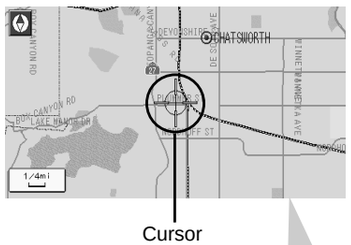
MODIFYING THE PRESENT LOCATION MARK LOCATION AND BEARING

MODIFYING THE PRESENT LOCATION MARK LOCATION AND BEARING [Adjust Current Location]

Depending on the driving conditions and the GPS satellite, the position/bearing of the present location mark may differ from the actual position/bearing of your vehicle. By making sure there is nothing obstructing the GPS satellite signal reception and by driving at a constant speed, the present location position/bearing is automatically corrected. However, you can correct these yourself by following the steps below.

Even if correcting the present location while the unit is presently positioning your vehicle after having connected the GPS exterior antenna, the present location will change to the position determined by the GPS.

1 **Use the joystick and align the cursor to the present location mark.**



Cursor

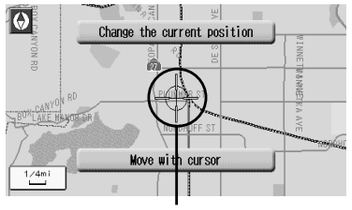
Selecting the most detailed map enables a more accurate position correction!

2 **Press the [MENU] button.**

3 **Select [Adjust Current Location] from the [SETTING] drop-down menu and press the [ENTER] button.**

4 **Verify the cursor position and correct if necessary.**

Position correction screen



Cursor

5 **Press the [ENTER] button.**

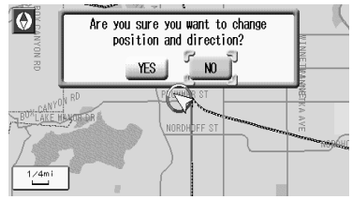
The display changes for the bearing correction screen.

Bearing correction screen

6 **Correct the present location mark with the Joystick (↔) and press the [ENTER] button.**

Heading

7 **Select [Yes] and press the [ENTER] button.**



NAVI

EDITING/VIEWING REGISTERED POINTS (1)

EDITING/VIEWING REGISTERED POINTS Edit Saved Location

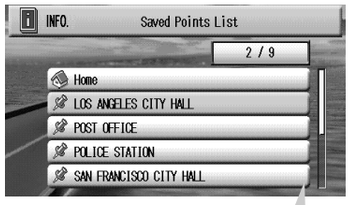
You can change the names/marks of marked locations and register telephone numbers (TEL)/memos.

1 **Press the MENU button.**

2 **Select Edit Saved Location from the INFO. drop-down menu and press the ENTER button.**

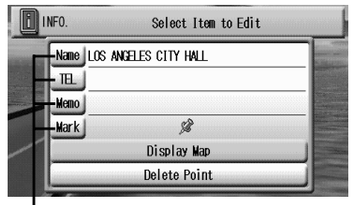
3 **Select a registered point and press the ENTER button.**

Example of selecting "LOS ANGELES CITY HALL".



Pressing down on the Joystick (↕) will display the continuation. Press the Joystick (↔) or the ▼/▲ buttons to go to the next/previous page.

4 **Select the item (Name/TEL/Memo/Mark) to change/register and press the ENTER button.**

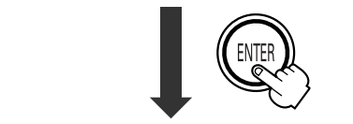


Presently registered information

Go to step 7 (p.135) if only to view information.

When changing the name

Name

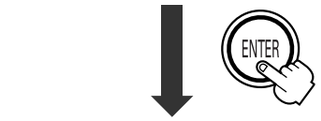


Name input screen

Registering a telephone number

TEL

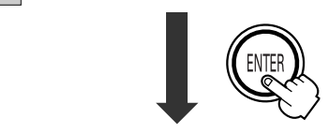
* Input up to 10 digits



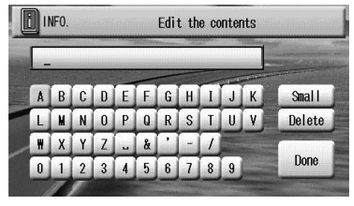
Telephone number input screen

Registering a memo

Memo



Memo input screen

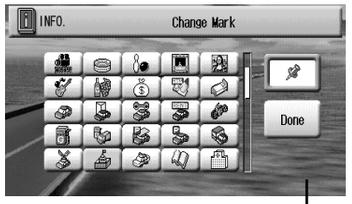


Changing a mark

Mark

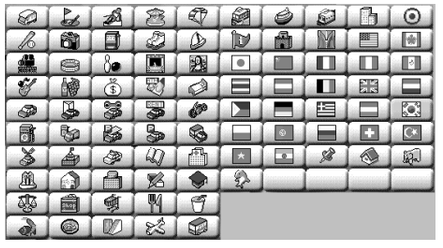
* The mark selected here is displayed on the map.

Mark input screen



Pressing down on the Joystick (↕) will display the continuation. Press the ▼ and ▲ button to go to the next/previous page.

List of marks



NAVI

RETRIEVING REGISTERED POINT MAPS

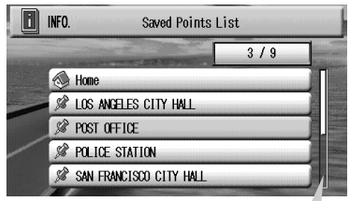
RETRIEVING REGISTERED POINT MAPS

1 Press the MENU button.

2 Select Edit Saved Location from the INFO. drop-down menu and press the ENTER button.

3 Select a geographic point and press the ENTER button.

The registered point information screen is displayed.



Pressing down on the Joystick (↕) will display the continuation. Press the Joystick (↔) or the ▼ / ▲ buttons to go to the next/previous page.

4 [illegible] and press the ENTER button.

NAVI

DELETING REGISTERED POINTS

DELETING REGISTERED POINTS
Edit Saved Location

1 **Press the MENU button.**

2 **Select Edit Saved Location from the INFO. drop-down menu and press the ENTER button.**

3 **Select the point desired for deletion and press the ENTER button.**

Example of selecting “Imperial Theater”.

Pressing down on the Joystick (↕) will display the continuation. Press the Joystick (↔) or the ▼ / ▲ buttons to go to the next/previous page.

4 **Select Delete Point and press the ENTER button.**

5 **Select Yes and press the ENTER button.**

6 **To complete setting…**
press the POSITION button to return the screen to the present location map.
Press the MENU button to return to the menu screen.

Hint

Deleting points will delete the mark display from the map as well as all the registered Name/TEL/Memo items.
To temporarily clear marks from the map, refer to p.124, “Disabling the registered point mark display”. (In this case, all registered point marks will be cleared from the map.)

About the unit’s memory
By effectuating registration/editing/deletion of geographical points, the unit’s memory is changed based on the new information. Cutting the power supply prior to completing a change in the unit’s memory may cause the automatic deletion of all registered points from the memory. If cutting the power supply after point registration/editing/deletion, make sure to wait for the present location screen to appear prior to turning the unit OFF.

VIEWING GPS INFORMATION

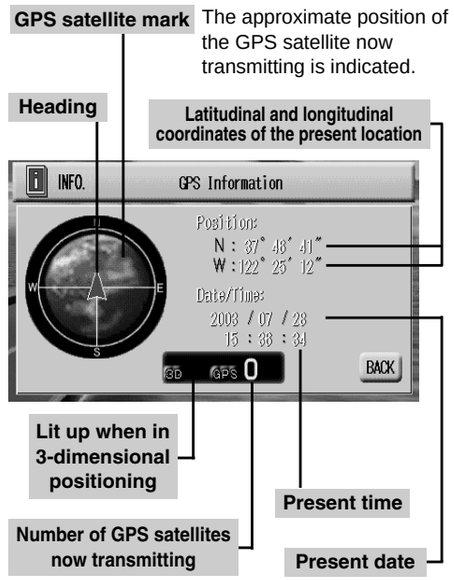
VIEWING GPS INFORMATION
GPS Information

The latitudinal and longitudinal coordinates of the present location, the number of GPS satellites now being used to receive signals and the present date, time and heading can be displayed.

1 **Press the MENU button.**

2 **Select GPS Information from the INFO. drop-down menu and press the ENTER button.**

GPS information screen



3 **When finished viewing, press the RETURN or ENTER button.**

The display will return to the menu screen.

Hint

The clock will have an error of about 1 second during GPS satellite signal reception. When not receiving signals, the error will be significant.

NAVI

VERIFYING UNIT CONNECTION

VERIFYING UNIT CONNECTION
Sensor Information

If the unit is not well connected to your vehicle, it will not function properly. After having completed the connection, check the parking brake connection at the connection verification screen.

1 **Press the MENU button.**

2 **Select Sensor Information from the INFO. drop-down menu and press the ENTER button.**

3 **Check the connection.**

Connection verification screen (ex.)

PARKING BRAKE

If well connected, “ON” will appear when the parking brake is set and “OFF” will appear when it is released.

4 **When verification is complete, press the RETURN or ENTER button to return to the menu screen.**

DVD/CD/JPEG IMAGING OPERATION

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TERMINOLOGY 174

TO START PLAYBACK

DVD CD

1 **Insert discs in the unit with the printed side up.**

☞ See p.52, “Inserting/removing a disc”.

2 **Slide the power supply switch upwards to turn ON the power supply.**

- If the DVD mode screen appears, the unit automatically starts playback.
- If the VIDEO/NAVI mode screen appears, go to step .

3 **Press the MODE button to display “DVD”.**

Every time the button is pressed, the mode display switches in the following order:

* The “DVD” indication will disappear after about 1 second.

* If a video deck/video camera is connected to the unit, “VIDEO” (VIDEO mode) is added.

4 **Adjust the volume and image (DIMMER/BLACK/DISPLAY/BEEP).**

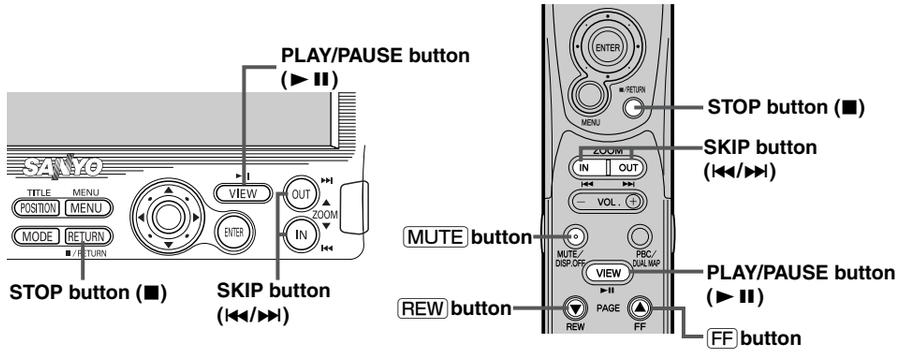
Adjust the volume using the VOL. button.

Adjust the image as described in “How to adjust the image” (p.178 to 180).

IF USING THIS UNIT INSTALLED IN YOUR VEHICLE

- Because vibrations while driving cause sound and image disturbance, avoid playback while driving. (Normal operation returns when vibrations cease.)
- If the unit’s power source is the vehicle’s 12V battery, for enhanced safety, images cannot be viewed unless the parking brake is set. (Sound can be heard.)

VARIOUS PLAYBACK FUNCTIONS DVD CD



TO STOP PLAYBACK

Press the STOP button (■).

Playback is stopped. (The RESUME PLAYBACK FUNCTION is enabled.)

RESUME PLAYBACK FUNCTION

- Pressing the stop button during playback sets the exact position where the DVD/CD was stopped in the unit's memory. This is called the RESUME PLAYBACK FUNCTION. When this function is enabled, the DVD video sound and image is stopped and the message "PRESS ► II TO CONTINUE" appears on the screen. The sound is stopped for CDs. Press the PLAY/PAUSE button (► II) to resume playback from the exact position where the DVD/CD was stopped.
- The RESUME PLAYBACK FUNCTION is disabled when executing the following operations:
  – Pressing the stop button again.
  – Opening the disc cover.
  – Reintroducing the power supply after having turned the unit OFF.
  – Returning to DVD mode after having switched to NAVI mode.

To resume playback, press the PLAY/PAUSE button (► II).

- If the RESUME PLAYBACK FUNCTION is enabled, the DVD/CD will resume playback at the exact position where it was stopped.
- If the RESUME PLAYBACK FUNCTION is disabled, the DVD/CD will be played back from the beginning.

PAUSE FUNCTION (FREEZE-FRAME)

Press the PLAY/PAUSE button (► II).

If playing back a CD, the sound will stop.
If playing back a DVD video, the image will freeze-frame. (The sound also stops.)
Press the PLAY/PAUSE button (► II) again to resume playback from the exact position where it was paused.

SKIP TO NEXT/PREVIOUS CHAPTER OR TRACK DURING PLAYBACK

Press the skip buttons (⏮/⏭).

To skip to the next chapter/track: press ⏭

To skip to the previous chapter/track: press ⏮ twice

* Press ⏮ once to return to the beginning of the chapter/track being played back.

Hint

- A "chapter" is a small segment of the sound/image content stored on a DVD video. A "track" is a segment representing a song stored on a CD. See p.174, "Terminology".
- Some discs may have chapters/tracks prohibiting this function.

REWINDING (REW) AND FAST-FORWARDING (FF)

Operable only with the remote control device.

Press the REW/FF buttons during playback.

Every time the REW/FF buttons are pressed, the DVD rewind/fast-forward speed is switched to 4 speed levels.

* Pressing the REW/FF buttons while the DVD video is paused, rewinds/fast-forwards the image up to 3 slow-speed levels.

TO RESUME PLAYBACK

Press the PLAY/PAUSE button (► II).

MUTING THE SOUND

Operable only with the remote control device.

Press the MUTE button.

The sound is muted and "MUTE" appears on the screen.
Press the button again to return the sound and clear the "MUTE" display.

TURNING OFF THE SCREEN DISPLAY TEMPORARILY

Operable only with the remote control device.

Press the MUTE button for at least 2 seconds

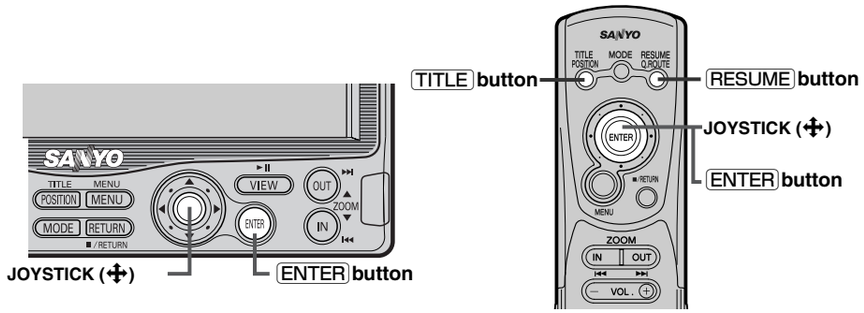
The screen blacks out roughly 3 seconds after the message "DISPLAY OFF" appears. Press the button again for at least 2 seconds to return the display.

HOW TO USE THE TITLE MENU

DVD

Depending on the DVD video, a title menu may be programmed in the stored contents. In such a case, use the title menu to select a scene to playback.

* A “title” is a large segment of the image/sound content stored on a DVD video.
See p.174, “Terminology”.



1 **Press the TITLE button during playback.**

The title menu appears.

2 **Use the Joystick (✣) to select the desired title and press the ENTER button.**

Playback of the selected title is initiated.

Hint

- A title menu may not be programmed depending on the disc.
- The title menu is a part of the stored data in a disc and its content varies depending on the disc.
- Depending on the disc, the “Title Menu” may be called the “Menu” or the “Title” or some other name. Also, the command “Press the ENTER button” in step **2** may appear as “Press the SELECT button”.
- Please read the instruction manual that came with the DVD video being played back along with this manual.

FINISH/STOP TITLE MENU OPERATION

Press the RESUME button.

Operable only with the remote control device.

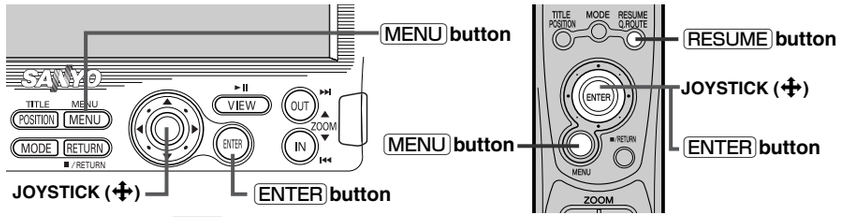
DVD video playback is resumed from the position before the title menu appeared.

* Playback may not be possible depending on the disc.
Refer to the instruction manual that came with the disc being played back for details.

HOW TO USE THE DVD MENU

DVD

A DVD menu may be programmed in the stored contents depending on the DVD video. In such a case, use the DVD menu to select a scene to playback.



1 **Press the MENU button during playback.**

The DVD menu appears.

2 **Use the Joystick (✣) to select an item and press the ENTER button.**

3 **If the selection screen continues, repeat step 2 .**

Hint

- Depending on the disc, a DVD menu may not be programmed.
- Because the DVD menu is programmed in the stored data of the disc, its content varies depending on the disc. For example, some discs enable the playback of the main feature preview/trailers or the selection of the audio/subtitle language or the scene.
- When playing back a DVD programmed with DTS or Dolby Digital 5.1ch, you can output the bit-stream signal from the unit’s optical digital sound output terminal. By connecting an AV amp with built-in DTS or Dolby Digital 5.1ch decoder, you’ll hear a striking, realistic sound quality that will make you feel like you’re in a movie theater or concert hall.
  * Set the “AUDIO SETTING AUDIO OUT” to “OPT-RAW” in the “SETUP” menu. (p.169)
  * If using an AV amp (decoder) not compatible for DTS or Dolby Digital 5.1ch and playing back a DVD with DTS or Dolby Digital 5.1ch programming may result in background noises unpleasant to the ears and damage to your speakers.
- Depending on the disc, “DVD Menu” may be called “Menu” or some other name. Also, the message “Press the ENTER button” in step **2** may read “Press the SELECT button”.
- Please read the instruction manual that came with the DVD you are playing back along with this manual.

FINISH/STOP DVD MENU OPERATION

Press the RESUME button.

Operable only with the remote control device.

Playback is resumed from the position before the time the DVD menu appeared.

* Playback may not be possible depending on the disc. Refer to the instruction manual that came with the disc being played back for details.

PLAYBACK FROM THE DESIRED POSITION DVD CD

SWITCHING THE AUDIO LANGUAGE

DVD

DVD videos may have multiple audio languages programmed depending on the disc. If so, select the desired language as per the instructions below.

Press the AUDIO button ( ) during playback.

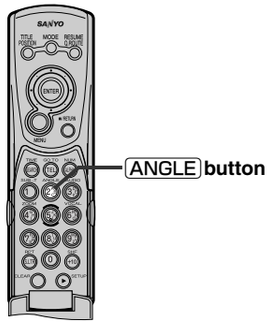
Every time the button is pressed, the listed audio languages programmed in the disc are switched.

Audio language list (example)

CHANGING THE ANGLE

DVD

Depending on the disc, the same scene appearing on DVD videos may have been programmed in multiple angles (multi-angle recording). If so, you can switch to the desired angle available and enjoy the movie.



* Inoperable from the unit.

Press the ANGLE button (ANGLE) during playback.

Pressing repeatedly switches the angle.

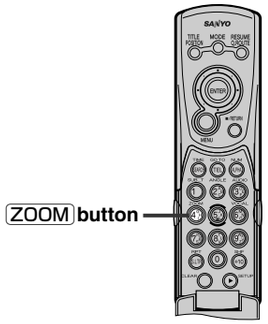
Hint

- The angle cannot be selected if the disc has not been programmed with multi-angle imaging.
- The total number of angles programmed varies depending on the disc and the recorded scene.

ENLARGING THE SCREEN

DVD

You can enlarge the screen when playing back a DVD video.



* Inoperable from the unit.

Press the ZOOM button (ZOOM) during playback.

Every time the button is pressed, the screen switches

→ ZOOM x 1.5 → ZOOM x 2 → ZOOM x 4 → ZOOM OFF .

MOVING THE SCREEN

Use the Joystick (✣) to move the screen vertically and laterally.

* The screen cannot be moved if “ZOOM OFF” is selected.

RETURNING TO THE NORMAL SCREEN

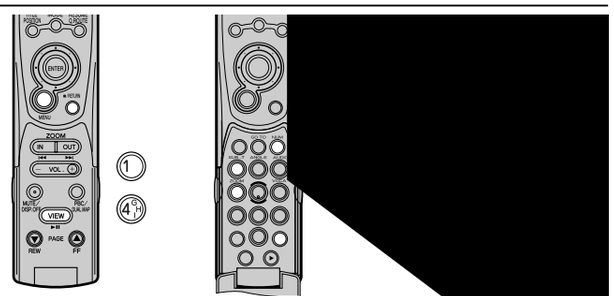
Press the ZOOM button and select “ZOOM OFF”.

SANYO
TITLE
MENU
RESUME
ENTER
RETURN
SETUP
CLEAR
DISPLAY

PLAYING BACK TRACK INTROS

CD

The intro playback function enables the playback of the beginning of tracks one at a time for roughly 10 seconds.



1

2 **Press the NUM button ( ) and press ① (1. INTRO) on the 10-key.**

Press the NUM button ( ) to display “NUM” and then press ①.

Intro playback is initiated.

* To end this operation, press the stop button (■) or execute steps and above to display “NUM” and press ④ (4. EXIT).

SWITCHING THE TIME DISPLAY DVD CD

You can select the type of time display to appear on the screen.

■ **For DVD videos**

Select from “TOTAL ELAPSED”, “TITLE REMAIN”, “CHAPTER ELAPSED”, “CHAPTER REMAIN” and “NO DISPLAY”.

■ **For CDs**

Select from “SINGLE ELAPSED”, “SINGLE REMAIN”, “TOTAL ELAPSED”, “TOTAL REMAIN” and “OFF”.

During playback, press the TIME button (TIME) to select the type of time display.

Repeatedly pressing the button changes the type.

For DVD videos

VIEWING JPEG IMAGES (2)

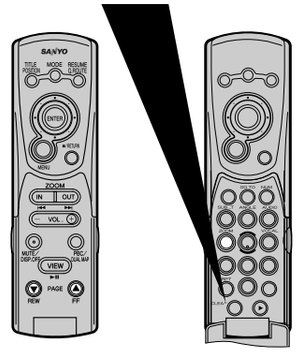
2 **Use the Joystick (✣) to select the JPG directory and press the ENTER button.**

3 **If there are other files, use the Joystick (✣) to select the desired file to be viewed and press the ENTER button.**

The image will be displayed for roughly 5 seconds before the next image is shown.

With "▲" and "▼" appearing on the screen, press the Joystick (↕) to display the rest of the file's content.

You can enlarge/reduce the image displayed on the screen.



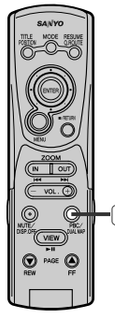
Press the ZOOM button (ZOOM 4:3) while the image is displayed.

"ZOOM ON" will then appear for roughly 3 seconds.

* During a slideshow, the image will stop the moment when the ZOOM button is pressed.

CHANGING THE SLIDESHOW DISPLAY FORMAT

The slideshow image display method can be switched among 12 available formats.



PBC button

* Inoperable from the unit.

Press the PBC button while the image is displayed.

Repeatedly press this button to switch the display format in the order below.

SLIDESHOW MODE
- 1 : Up to down
- 2 : Down to up
- 3 : Up/down to center
- 4 : Center to up/down
- 5 : Horizontal blind type
- 6 : Left to right
- 7 : Right to left
- 8 : Right/left to center
- 9 : Center to right/left
- 10 : 4-corners to center
- 11 : Vertical blind type

RAND : Random switch from format 1 to 11

NONE : Switch to normal

SELECTING PLAY MODE

You can select the image playback format.

Disc data screen (screen while playback is stopped)

<Example>

File selection position

Play mode selection position

While the disc data screen is displayed, press the Joystick (➡) to move the cursor to the play mode selection position.

Press the Joystick (⬍) repeatedly to switch among the following list (in that order).

SINGLE	: Display only one file.
REPEAT SINGLE	: Repeat one file. * The skip buttons (⏮/⏭) are disabled in this mode.
FOLDER	: Display entire folder content and, when finished displaying, the disc data screen appears.
REPEAT FOLDER	: Repeat entire folder content.
RANDOM	: Display folder content randomly.
SHUFFLE	: Display folder content randomly and, when finished displaying, the disc data screen appears.

* The mode is set when it changes.

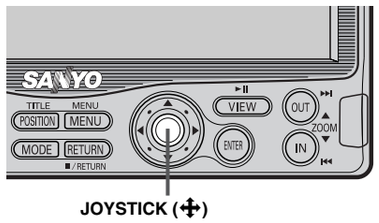
TO END PLAY MODE SELECTION

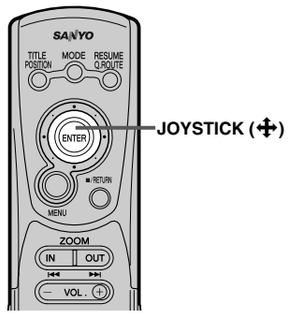
Press the Joystick (⬌) to move the cursor to the file selection position.

ROTATING THE IMAGE

The displayed image can be rotated.

* When performing this function, we recommend you switch the play mode to “SINGLE”.





Press the Joystick in the directions described below while the image is displayed.

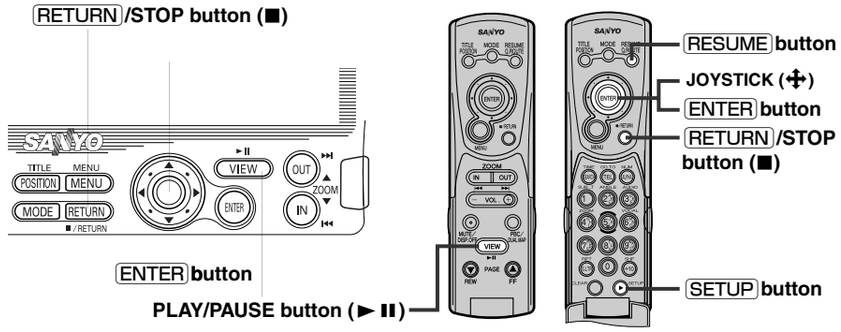
Press the Joystick on the left side (⬅): the image is rotated 90 degrees counterclockwise

Press the Joystick on the right side (➡): the image is rotated 90 degrees clockwise

Press the Joystick on the top (⬆): the image is inverted vertically

Press the Joystick on the bottom (⬇): the image is inverted laterally

CHANGING THE INITIAL SETTINGS (1)



1

2 **Use the Joystick (⬍) to select a setting item and press the ENTER button.** The selected item will light up yellow.

SELECTED ITEM	SETTINGS	
LANGUAGE	● AUDIO	: switch audio language during DVD video playback
	● SUBTITLE	: switch subtitle language during DVD video playback
	● MENU	: switch DVD menu display language
	● OSD	: switch initial settings display language
AUDIO	● D-RANGE	: sharp sound quality enabled during DVD video playback even at a low volume (only with Dolby Digital sound)
	● AUDIO-OUT	: setting for sound output from speakers, headphones and the audio I/O and optic digital audio output terminal
	● TV ASPECT	: switch the image aspect ratio during DVD video playback
PARENTAL	● LEVEL	: audio-visual control level setting
	● PASSWORD	: password change to prohibit others from modifying the audio-visual control level setting

CHANGING THE INITIAL SETTINGS (2)

3 **In step , if having selected:**

“LANGUAGE”, go to p.166.
“AUDIO”, go to p.168.
“DISPLAY”, go to p.170.
“PARENTAL”, go to p.172.

- The parental control settings for DVD videos can be programmed only while playback is stopped (with no resume playback function).
- The settings stay the same unless modifications are effectuated (even when cutting the power supply).
- Items selected with the Joystick (⬍) light up yellow.
- Within each item, the mode presently selected lights up blue.
- Depending on the disc, changing initial settings may not be permitted even if having modified them while playback is stopped. For such a case, press the stop button (■) twice to stop the disc and set each initial setting

oing62 119.62 85.04 -31.63 re fbC .0o, -3Tibl10them while playback isfbC .0o, e5 509.9113hem0o, 9 82pf9hem03b78t7g playba311st241

3 **Use the Joystick (⬍) to select the setting item desired for change and press the Joystick (➡).**

Settings list

- **Select “AUDIO” to switch the DVD video audio language.**
- **Select “SUBTITLE” to switch the DVD video subtitle language.**
- **Select “MENU” to switch the display language of the DVD menu programmed in the DVD video.**
- **Select “OSD” to switch the initial settings display language.**

4 **■ If selecting “AUDIO”, “SUBTITLE” or “MENU” in step**

Use the Joystick (⬍) to select the desired language and press the ENTER button.

The following languages are available for selection.

JAPANESE	ENGLISH	FRENCH
SPANISH	CHINESE	

■ If selecting “OSD” in step

Use the Joystick (⬍) to select 日本語 (Japanese) or English and press the ENTER button.

CHANGING THE INITIAL SETTINGS (3)

Hint

- If having selected a language not programmed in the disc, playback will start with one of the languages programmed in the disc.
- Depending on the disc, only one language may be programmed.
- The AUDIO/SUBTITLE settings can be switched at the DVD menu (☞see p.146) or the title menu (☞see p.145) using the remote control device's AUDIO button or the SUB-T button. However, if having turned ON the power supply and switched to DVD mode from another mode or if having changed discs, the language setting when playback begins will be the SETUP language.

SELECTING "AUDIO" IN STEP 2 (P.164)

3 **Use the Joystick (⬍) to select the setting item desired for change and press the Joystick (➡).**

Settings list

- **Select "D-RANGE" to set the DVD playback output sound register for discs programmed with the Dolby Digital format.**
- **Select "AUDIO-OUT" to set the sound output for the speakers, headphones and the sound I/O-optical digital sound output terminal.**

4 **■ If selecting "D-RANGE" in step 3**

Use the Joystick (⬍) to select "OFF" or "ON" and press the ENTER button.

"OFF": Select to hear the standard register.

"ON": Select to enjoy a sharp sound quality even at a low volume.

CHANGING THE INITIAL SETTINGS (4)

■ If selecting “AUDIO-OUT” in step 3

Use the Joystick (↕) to select the setting desired for change and press the ENTER button.

Change the settings according to the digital audio device presently connected.

- **ANALOG**
  An analog signal is outputted from the speakers, headphones and audio I/O terminal. There is no output from the optical digital audio output terminal.
- **OPT-RAW**
  Select this mode when connecting an AV amp with built-in Dolby Digital or DTS decoder connected to the unit’s optical digital audio output terminal. When playing back DVDs programmed with Dolby Digital 5.1ch or DTS, their bit stream signal is outputted respectively. Also, discs programmed with linear PCM will be played back with linear PCM. There is no output from the unit’s speakers, headphones or audio I/O terminal.
- **OPT-PCM**
  When playing back DVDs programmed with Dolby Digital, the sound is changed into a 48kHz/16 bit PCM (2ch) and outputted. Also, discs programmed with linear PCM will be played back with linear PCM. There is no output from the unit’s speakers, headphones or audio I/O terminal.

If having connected a digital audio device with no built-in DTS decoder or Dolby Digital decoder, make sure to set “OPT-PCM” for the “AUDIO SETTING”. Setting “OPT-RAW” may result in an output of noise unfavorable to the ears and in damage to the speakers.

SELECTING “DISPLAY” IN STEP 2 (P.164)

3 **Press the Joystick (➡).**

Settings list

- **Switch the image aspect ratio during DVD video playback.**

4 **■ Use the Joystick (↕) to select the 3 aspect ratio and press the ENTER button.**
(16:9 WIDE / 4:3 P&S / 4:3 LB)

CHANGING THE INITIAL SETTINGS (5)

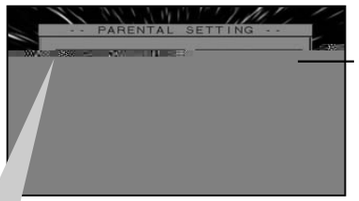
Hint

- If having selected an aspect ratio not programmed in the disc, the unit will playback using one of the aspect ratios programmed in the disc. Also, depending on the disc, there may be only one aspect ratio programmed. Verify the instruction manual for the disc being played back.
- If connecting a normal monitor to the video I/O terminal and setting “16:9 WIDE”, the image may look unnatural. If using a normal monitor, set “4:3 LB” or “4:3 P&S”.
- If connecting a wide monitor to the video I/O terminal and setting “Full” or some other equivalent mode with “4:3 LB” or “4:3 P&S”, the screen will look unnatural. If viewing “4:3 LB” or “4:3 P&S” images using a wide monitor, set the wide monitor in a mode that will enable the screen lengthwise and crosswise ratio to be 4:3 (the name of this mode varies among makers, for example “Normal mode”).

SELECTING “PARENTAL” IN STEP 2 (P.164)

3 **Use the Joystick (↕) to select the setting to be changed.**

To select “LEVEL”, press the Joystick (➡).
To change the password, press the ENTER button.



- **Select “LEVEL” to set the parental control level of DVD videos with such a function programmed.**
- **Select “PASSWORD” to change the password.**

4 **■ If selecting “LEVEL” in step 3**

Use the Joystick (↕) to select the parental control level and press the ENTER button.

AV control level	
	OFF
	“8” (All DVD videos can be played back)
	“7”
	“6”
	“5”
	“4”
	“3”
	“2”
	“1” (Only DVD videos with content geared towards children can be played back.)

The lower the level, the more severe the control becomes.

To cancel the parental control, select “OFF”.

CHANGING THE INITIAL SETTINGS (6)

Title/chapter

The content programmed in DVD videos
may be divided into large segments c921 l 4346 58 945 61r 617.949 Tf -0.08i0p 5 re2onte ra6ECr245

■ **If selecting “CHANGE PASSWORD” in step**

- Input the number according to the screen below.

* To input numbers, press the NUM button ( ) on the remote control’s 10-key and input the number using the 10-key while “NUM” is displayed on the screen (roughly 5 seconds).

* The default password is “0000”.

- When the 3 items have been inputted, press the ENTER button to return to the screen shown in step .

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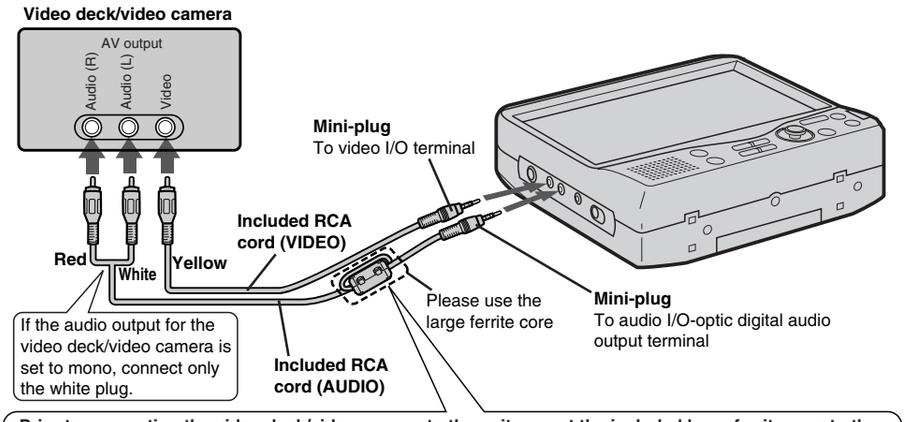
CONNECTING A VIDEO DECK/VIDEO CAMERA

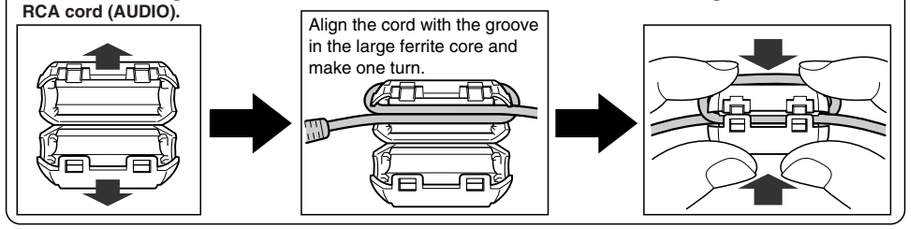
Use the AUDIO and VIDEO RCA cords included with this unit to enable the playback of images from your video deck or video camera.

1 Connect your video deck/video camera to the unit.

* Prior to connecting, cut off the power supply to the video deck/video camera.



Prior to connecting the video deck/video camera to the unit, mount the included large ferrite core to the RCA cord (AUDIO).



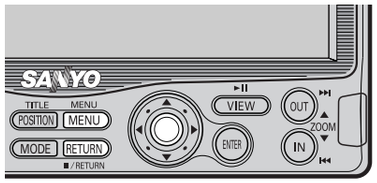
2 Turn the power supply ON for the video deck/video camera ”VIDEO” will be displayed on the screen for roughly 10 seconds.

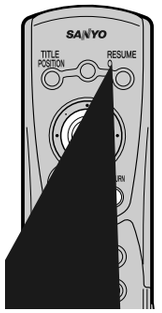
*If the unit is in another mode, press the MODE button to return the unit to the VIDEO mode.

3 Start playback on the video deck/video camera.

* Refer to the video deck/video camera instruction manual for their respective operation method.

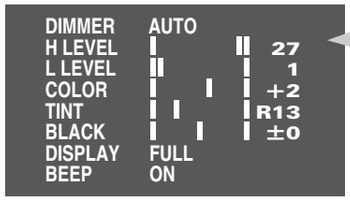
HOW TO ADJUST THE IMAGE (1)





1 Press the MENU button for at least 1.5 seconds.

The adjustment mode appears on the screen.



The adjustment mode display will only appear for roughly 10 seconds. Before it disappears, perform step .

HOW TO ADJUST THE IMAGE (2)

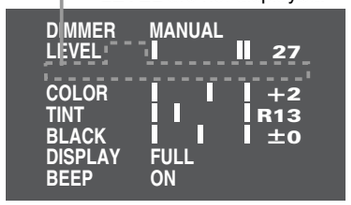
3 Adjust or select using the Joystick (⬌).

DIMMER (AUTO/MANUAL) ADJUSTMENT

When selecting MANUAL for the dimmer setting, the H LEVEL/L LEVEL are not displayed.

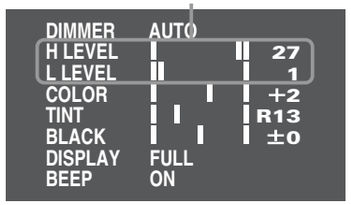
When the dimmer is set to MANUAL

The brightness of the screen remains constant regardless of the amount of light in the surrounding area.
Press ➡ to brighten.
Press ⬅ to darken.



Turning ON the AUTO DIMMER enables dimmer adjustment.

When adjusting the brightness, set the dimmer to AUTO and adjust to either H LEVEL or L LEVEL.



When the dimmer is set to AUTO

H LEVEL: The screen's brightness is adjusted when the amount of light in the surrounding area increases.

L LEVEL: The screen's brightness is adjusted when the amount of light in the surrounding area decreases.

* The H LEVEL cannot be adjusted towards the ⬅ side from the L LEVEL value. (adjustment towards the ➡ side possible)
The L LEVEL cannot be adjusted towards the ➡ side from the H LEVEL value.(adjustment towards the ⬅ side possible)

H LEVEL

Press the ➡ side to increase the brightness.
Press the ⬅ side to decrease the brightness.

L LEVEL

Press the ➡ side to increase the brightness.
Press the ⬅ side to decrease the brightness.

About dimmer adjustment

- Dimmer adjustment is a function that enables the adjustment of the brightness of the screen.
- Using the Joystick (⬌) to set the dimmer to AUTO, the unit's brightness sensor detects the surrounding luminosity and automatically modifies the brightness of the screen to correspond to the brightness of the surrounding area. For example, the screen is made bright when there's a lot of light coming from the sun during the day and the brightness is turned down at night or when driving through a tunnel.

Hint

When the amount of light in the surrounding area changes abruptly such as when going in and out of tunnels, the unit's sensor detects the change and adjusts the brightness in about 3 seconds. (See p.181, "About the automatic brightness adjustment function".)

COLOR (VIDEO mode)

Press ➡ to darken.
Press ⬅ to lighten.

Lightened ⬌ Darkened

TINT (VIDEO mode)

Adjust until the skin tone of the people appearing in the image looks natural.

Press ➡ to enhance the green.
Press ⬅ to enhance the red.

Red enhanced ⬌ Green enhanced

BLACK

Blackness increased ⬌ Whiteness increased

Press ➡ to increase the whiteness.
Press ⬅ to increase the blackness.

DISPLAY (VIDEO mode/DVD mode)

Select the desired screen display setting from 4 different types: FULL, CINEMA, WIDE and NORMAL.

FULL : 4:3 image stretched on either side to fit a 16:9 screen.
CINEMA : enlarged 4:3 image screen
WIDE : screen with the "discomfort" of the full screen lessened
NORMAL : 4:3 image screen
* If having selected CINEMA, the upper and lower parts of the screen are cut out in order to enlarge the image.

BEEP

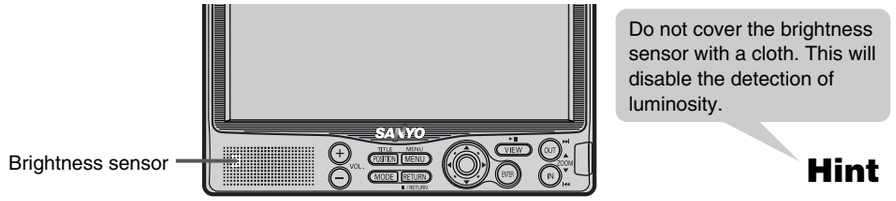
Select the key operation sound ON or OFF (to make a "beep" sound when keys are pressed).

4 To complete setting…

Press the RETURN button.

ABOUT THE AUTOMATIC BRIGHTNESS ADJUSTMENT FUNCTION

This unit uses a brightness sensor to detect the level of luminosity in the surrounding area and automatically modifies the brightness of the screen in accordance with the surrounding luminosity.



Do not cover the brightness sensor with a cloth. This will disable the detection of luminosity.

Hint

USING THE AUTOMATIC BRIGHTNESS ADJUSTMENT FUNCTION

As described in "How to adjust the image" (p.178 to 180), select "AUTO" for the dimmer setting.

DISABLING THE AUTOMATIC BRIGHTNESS ADJUSTMENT FUNCTION

As described in "How to adjust the image" (p.178 to 180), select "MANUAL" for the dimmer setting.

The unit will not modify the screen brightness even if the amount of light in the surrounding area changes.

ABOUT THE BRIGHTNESS OF THE BUTTONS

When the power is turned ON, the characters appearing on the buttons of the unit (POSITION, MENU, MODE, RETURN, VIEW, ENTER, OUT, IN, ▲, ►, ▼, ◄) and (+, –, ◯) will light up blue.

MAIN SPECIFICATIONS

MONITOR

Type	Liquid crystal color monitor
Drive system	TFT active matrix system
Screen size	7V type
Light source	Cold cathode tube

NAVIGATION

GPS antenna	Micro-strip flat antenna
Reception frequency	1575.42MHz (C/A cord)
Reception system	18 channels parallel
Reception sensitivity	–130dBm
Updating Interval	About 1 second
Format	Original DVD format

DVD VIDEO/CD PLAYER

Made for the following disc type:
- DVD video
- Music CD (CD-DA)

5 inch (12 cm) and 3 inch (8 cm) diameter

Reading format	Non-contact optical reading (using a semiconductor laser)
Frequency range	20Hz to 20kHz (+1.0dB to –2.0dB)
S/N ratio	85dB or more
High harmonic distortion	0.1% or less
Dynamic range	88dB or more
Wow and flutter	Within or under the measurement limit

I/O TERMINAL

Expansion output terminal
14 pin connector

Power supply input terminal
DC 9V (EIAJ terminal)

GPS exterior antenna input terminal
GPS connector

Brake terminal Mini-jack

Headphone output terminal
Stereo mini-jack

Video I/O terminal Mini-jack

Audio I/O terminal/ optic digital audio output terminal
stereo mini-jack/optic mini-jack

S video output terminal S terminal

OTHER

Power source AC 120V, 60Hz
DC 12V

Current 2.0A (when using DC-DC)

Power consumption
18W (when using the navigation system)

Temperature range
32 to +122°F (0 to +50°C) (when in NAVI or VIDEO mode)
41 to +95°F (+5 to +35°C) (when in DVD mode)

Exterior dimensions
About 175X42X137mm (width x height x depth)
*excluding projections

Weight About 800g (main unit only)

* The specifications and design of this unit are subject to change for improvements without prior notification.

* The V-type monitor screen size (7V type) is a standard based on the dimensions necessary for an effective screen.

RECEIVING SIGNALS FROM THE GPS SATELLITE

If the unit does not receive signals from the GPS satellite using the GPS exterior antenna included with the unit, present location measurement will be impossible. To display the actual present location, connect the GPS exterior antenna to the unit and proceed with the reception of signals from the GPS satellite.

PRESENT LOCATION MEASUREMENT

Proceed with GPS satellite signal reception as shown below. When the unit receives signals it can use to measure the present location, the GPS reception display ( ) located in the top right corner of the present location display screen lights up yellow and the actual present location is displayed.

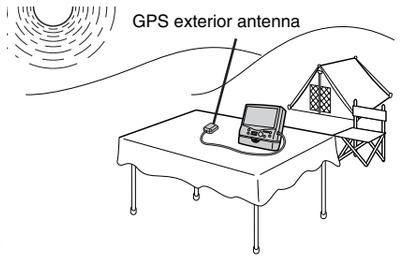
* When the GPS reception display ( ) is gray, the present location measured previously is displayed. After having purchased the unit, the San Francisco area will be shown if the unit hasn't had a chance to measure the present location yet. GPS signal reception is impossible from inside a building. To measure the present location properly, take the GPS exterior antenna outside and proceed with signal reception.

IF USING THE UNIT INSTALLED ELSEWHERE THAN YOUR VEHICLE

Connect the included GPS exterior antenna to the unit and place it outside in an area where signals will not be obstructed.

* Within buildings or public transportation, the roof may obstruct the proper reception of GPS satellite signals rendering the measurement of the present location impossible.
* To prevent interference between the navigation unit and the GPS exterior antenna, we recommend that you install them at least 10 inches apart.

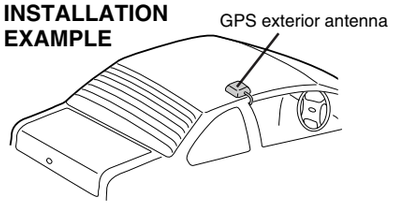
INSTALLATION EXAMPLE



IF USING THE UNIT INSTALLED IN YOUR VEHICLE

Connect the included GPS exterior antenna to the unit.
Mount it horizontally on the exterior chassis of the vehicle or in your vehicle (dashboard) on a flat surface where any part of your vehicle will not obstruct signal reception.

INSTALLATION EXAMPLE

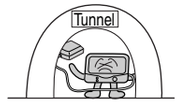


* – Signals may not be properly received if installing within the vehicle. Try your best to install it on the exterior of your vehicle. (The included GPS antenna mounting plate is required if installing within your vehicle.)
  – If installing within your vehicle, we recommend your separate the unit and the GPS exterior antenna by at least 10 inches so as to prevent them from interfering.

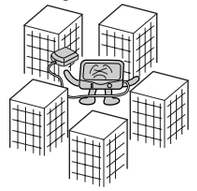
AREAS WHERE PRESENT LOCATION MEASUREMENT IS IMPOSSIBLE

In the event of obstructions blocking GPS satellite signals from reaching the GPS exterior antenna, the signals will be difficult to receive rendering the measurement of the present location impossible. Conditions for proper present location measurement include driving in areas where there are no obstructions blocking signal reception.
Areas such as the following are not suitable for GPS satellite signal reception, move away from them for proper positioning.

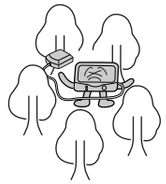
- In a tunnel



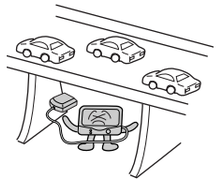
- Surrounded by tall buildings



- Within a dense cluster of trees



- Under an elevated highway



- Within a building

- When riding on public transportation

* The following are reasons why the GPS satellite reception frequency fluctuates even at the same location.
  - Because the position of the GPS satellite changes with time due to its orbit around the earth.
  - Because signal reception may be affected by other signals whose frequencies are close to those transmitted by the GPS satellite.

THE TIME IT TAKES FOR PROPER SIGNAL RECEPTION

Make sure to conduct signal reception in a wide open area.
When the unit receives signals it can use to measure the present location, the GPS reception display ( ) located in the top right corner of the present location display screen lights up yellow and the actual present location is displayed.
After having purchased the unit and using it for the first time or using it again after an extended period of inactivity, it may take the unit 15 to 20 minutes before being able to display the actual present location. (This is because the satellite tracking data is sent by the GPS satellite once every 12.5 minutes significantly delaying the time it takes for data to be received. **Do not move your position until the present location is displayed.**) Normally, the position screen should appear a few minutes after having turned the power ON.

CAUTIONARY ITEMS DURING ROUTE GUIDANCE (1)

■ **The route displayed is the reference route.**
This may not be the shortest route to the destination.

■ **Whether it's because the roads have been modified or because the map DVD-ROM is outdated, the shape of the roads as well as the traffic conditions may vary from the actual conditions. Make sure to drive your vehicle as per the actual traffic conditions.**

■ **During a route search, the map does not shift in accordance with the running of your vehicle.**

■ **After a route search is complete, it may take a moment until the recommended route is displayed.**

■ **There may be instances when the route does not disappear from the screen when arriving at your destination or at waypoints. Either search for a new route or turn off the engine to clear the route from the screen.**

■ **When re-effectuating a route search, the unit will not search for a route to return to waypoints that have been determined as already passed along the route.**

■ **When the map is shifted while the route is displayed, it may take a moment for the route to be redisplayed.**

■ **If having made a route search prioritizing distance, the unit may lead you through narrow roads or on toll roads.**

■ **Even if having made a route search prioritizing distance, the unit will prioritize safe, easy to drive on local roads near the departure and destination points that may not represent the shortest distance.**

■ **Set the position accurately in areas where roads are in close proximity to each other. Especially in areas where the two directions of traffic are displayed as separate roads, make sure the heading is correct and set your destination and waypoints on roads.**

■ **In the event waypoint(s) are set, the unit searches for routes between them separately which may result in the following:**

- If a route search is impossible for any of the points, the entire route is not displayed.
- The route may be broken near the waypoints.
- A U-turn route may be displayed near waypoints.

■ **A route search may be impossible in the following circumstances:**

- The present location and the destination are too far from each other. In such a case, reinitiate a route search after having set closer to the destination.
- Actual traffic conditions render access to the destination or waypoint impossible.
- There are only routes representing extreme detours.
- Other instances where conditions render a route search impossible.

■ **There may be instances when the following routes are displayed.**

- Even if making a route search, there may be a route displayed starting from the front or the back of the vehicle mark.
- Even if having set a destination, there may be a route displayed from the front or the back of the vehicle mark.
- Even if making a route search, the display may show a route starting from another road.
  For such a case, the vehicle mark may not correspond with the present location. Re-effectuate the route search after the vehicle mark has returned to the correct road.
- Setting the destination and waypoints with points retrieved from already registered points or guidance data may lead to the display of routes with wide detours. If correcting such routes, make sure to set them accurately keeping in mind the proper heading. Pay special attention to roads whose two traffic directions are shown as separate roads such as in the case of interchanges and service areas.
- Even if having set a destination reachable completely on land with no check mark (☑) indicated next to **Use Ferries** in **Preferred Route**, the unit may set a route that contains a ferry crossing. If wanting to correct the route, set a waypoint along a land bound route and re-effectuate the route search.
- For the ferry seaway crossings, it is possible to set a main route that excludes passenger only or bicycles only ferries, however, these are meant as a guide to be used only after verifying carefully the approximate time of arrival as well as the trip conditions.

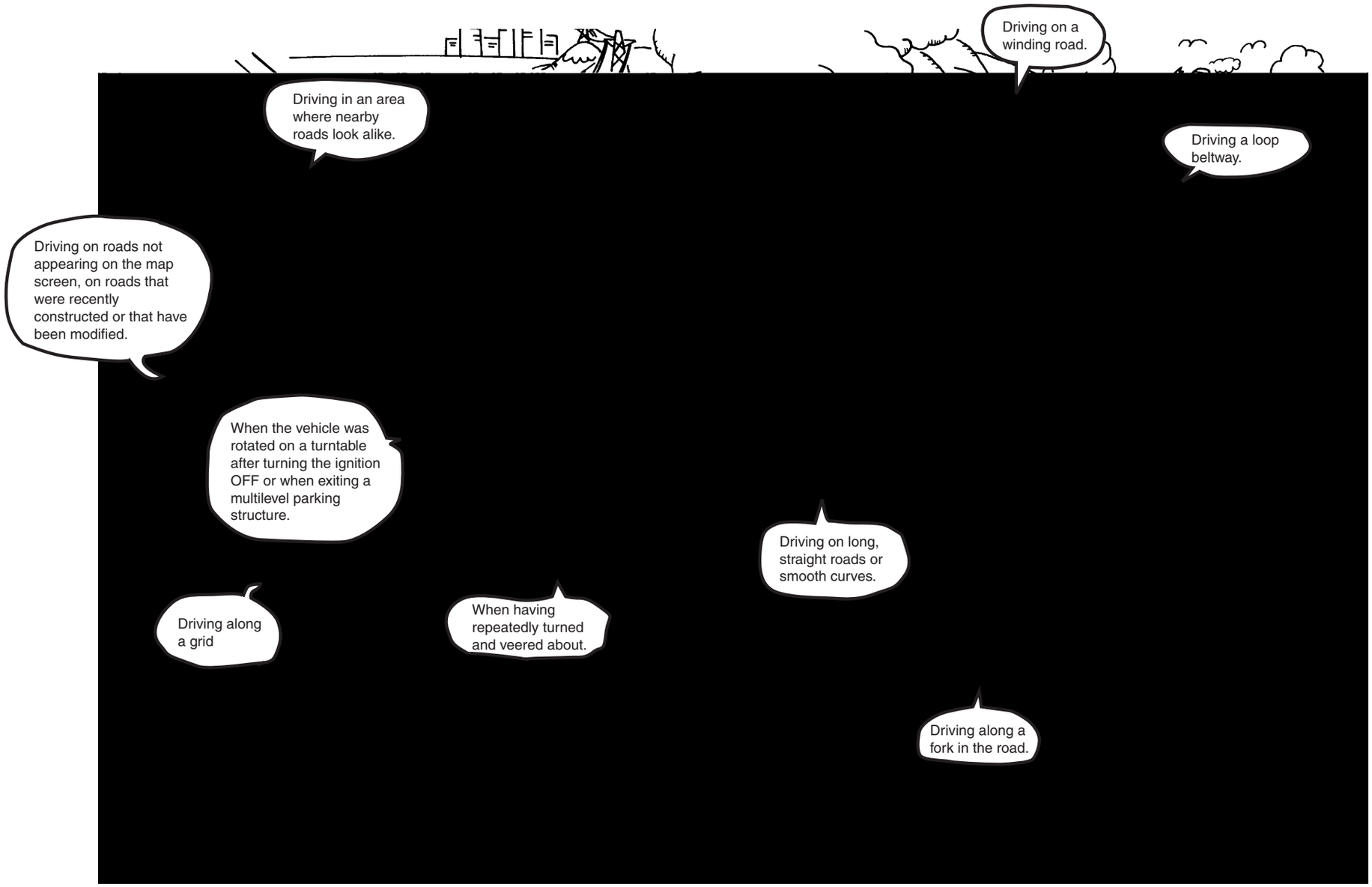
CAUTIONARY ITEMS DURING ROUTE GUIDANCE (2)

About vehicle mark display errors

The vehicle mark's present location and heading may be inaccurate under the following driving conditions. The unit is not malfunctioning, keep on course and it will come back to normal.

Hint

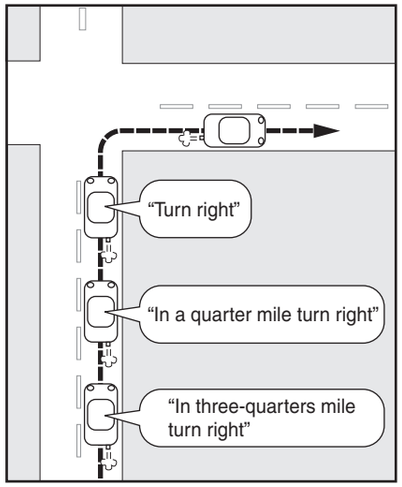
The vehicle mark positioning may be inaccurate even after having started moving the vehicle.


Driving in an area where nearby roads look alike.
Driving on a winding road.
Driving a loop beltway.
Driving on roads not appearing on the map screen, on roads that were recently constructed or that have been modified.
When the vehicle was rotated on a turntable after turning the ignition OFF or when exiting a multilevel parking structure.
Driving on long, straight roads or smooth curves.
Driving along a grid
When having repeatedly turned and veered about.
Driving along a fork in the road.

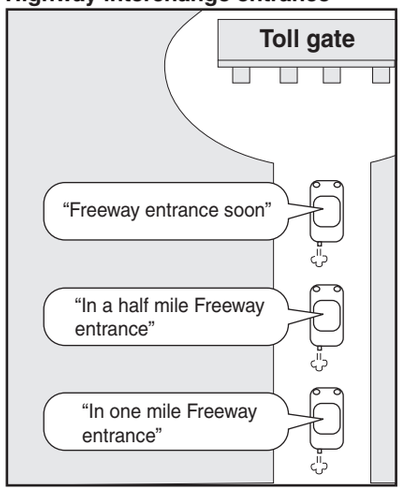
ABOUT THE VOICE GUIDANCE

The unit will guide you all the way to your destination by automatic voice outputs announcing upcoming turns or intersections. (Voice guidance)

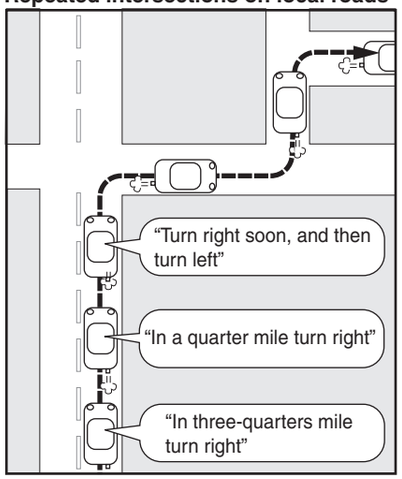
Intersection of a local road



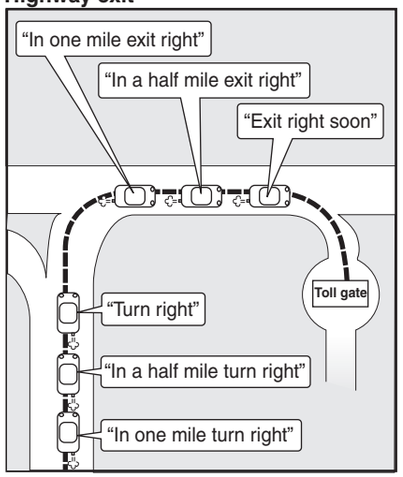
Highway interchange entrance



Repeated intersections on local roads



Highway exit


"In one mile exit right"
"In a half mile exit right"
"Exit right soon"
Toll gate
"Turn right"
"In a half mile turn right"
"In one mile turn right"

Cautionary items during voice guidance

- **The voice guidance provided by this unit is merely a backup system. While driving, check the route display on the map and proceed with your trip in accordance with the actual traffic conditions.**
- **Voice guidance is provided only for intersections that match a certain set of conditions determined by the unit. There may be instances during your trip when voice guidance is not provided even if the heading changes along the route.**
- **The content of the voice guidance may vary depending on the turning direction and the way adjoining roads are linked.**
- **The voice guide timing may be too fast or too late.**
- **Voice guidance is initiated as soon as you start driving on the route provided by the unit. Therefore, refer to the route display on the map to help you along on your trip until the voice guide is activated.**
- **When approaching a waypoint, the guide will announce "Approaching waypoint " and then proceed to guide you on the next route segment. Just as when voice guidance is first initiated on your trip, refer to the route display on the map until the voice guide for the next segment begins.**
- **When approaching the destination, the guide will announce "Approaching destination" and end. From that point on, refer to the map and drive towards your destination point.**

Hint

- The content of the voice guidance may vary depending on the disparity between the actual road conditions and the data stored in the map DVD-ROM as well as the speed of your vehicle*1.
- In the event the content of the voice guidance differs from the actual traffic conditions, drive in accordance with signs and indications that govern the flow of traffic.

ABOUT THE MAP DVD-ROM

The map DVD-ROM included with this unit is the North America MAP 1.0, DVD-ROM North America Version.

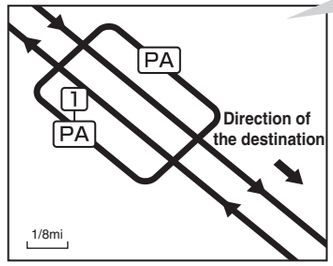
1. Refer to the instruction manual that comes with the disc for details pertaining to its maps (data content, display icons, etc.).

SETTING THE DEPARTURE/WAYPOINT/DESTINATION POINTS

POINTERS ON REGISTERING WAYPOINT AND DESTINATIONS

Set waypoint and destination using the most detailed map. Not doing so may result in these locations being positioned differently than desired.

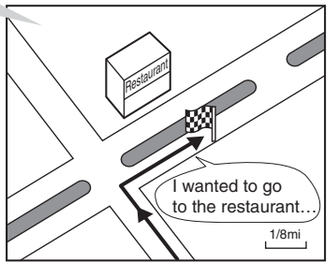
Example:
Having set a waypoint on a highway parking area



The point may be set in the parking area on the opposite direction of the destination rendering a correct route impossible.

The most detailed map

Example:
Having set a destination on a local road that has central dividers.

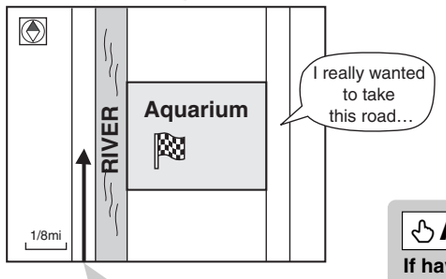


The unit may set the destination along the opposite lane or may lead you on a wide detour.

Set the waypoint(s) using the most detailed map along the parking area or lane in the direction of the destination.
Verify whether the destination point is positioned in the proper lane using the most detailed map. Do not set waypoint/destination points in intersections.

FINDING A POI MAP VIA A MENU SEARCH

Example:
A map with "---Aquarium" is selected from "Searching for points of interest and retail establishments" and a destination point is registered.



Because this road is the nearest to the destination mark, the point along the road across the river becomes the actual destination point of the route search.

The departure/waypoint/destination point marks are registered right on the POI, however, the actual departure/waypoint/destination points for the route search are set along the roads available in the search data that are nearest to the registered points. Because of this, the set route may be different from the roads you intended to take.
To avoid this, use the most detailed map to register the point along the desired road that is available in the search data in the proper lane heading towards the destination.

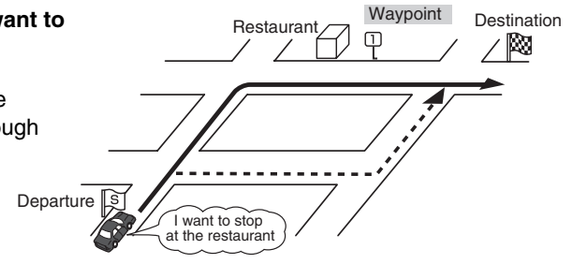
Advise

If having registered a departure / waypoint / destination point on a road not available in the search data, the actual position of the point will be set by the route search on the available road nearest to those registered points in a straight line. To determine whether a road is available in the search data, see the roadmap legend in the map disc's instruction manual.

SKILLFULLY CONSTRUCT A ROUTE USING WAYPOINTS

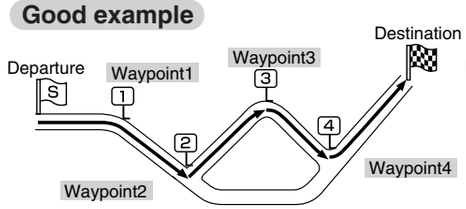
Example:
When there is a location you want to stop at along the route.

If a waypoint(s) is not set, a route (- - - - ▶) that doesn't pass through desired stops may be provided.

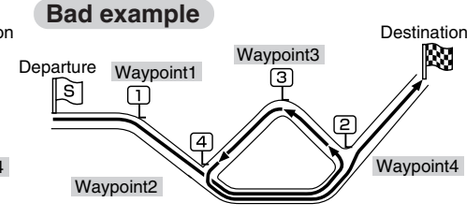


Example:
Set waypoints in order starting from the location nearest to the departure point (present location).

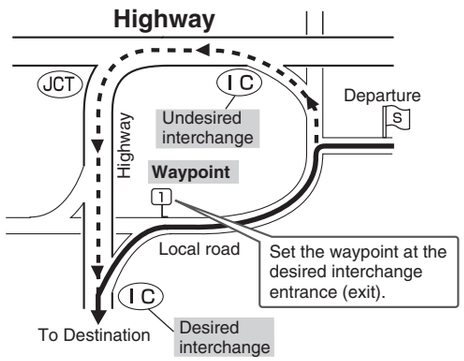
Good example



Bad example



Example:
Wanting to get on/off a desired highway interchange.



Set the waypoint at the desired IC entrance (exit).
If not setting a waypoint(s), the unit may select an undesired IC leading you on a route (- - - - ▶) with a wide detour.

OTHER

ABOUT UPGRADES

TROUBLESHOOTING (1)

You may think the unit is damaged at the occurrence of the slightest operational error or bad connection.
Before requesting technical assistance, use the items below to check the unit. If abnormal functioning persists, stop using the unit and contact the store of purchase.

NAVI

Basic operational troubles

SYMPTOM	CAUSE	REMEDY	PAGE NO.
No power	Electric cord improperly connected. (If using a power cord.)	Check the connection.	50, 51
	Cigarette lighter is dirty or rusted. (If using a 12V vehicle cigarette lighter connector cable.)	Remove the dirt or rust from the vehicle's cigarette lighter.	–
	Batteries are incorrectly inserted. (If using batteries.)	Check the +/– terminal orientation and reinsert correctly.	–
	Batteries are depleted. Improper battery case installation/connection. (If using batteries.)	Recharge batteries.	–
No image	DIMMER/BLACK adjusted to maximum dark.	Adjust the DIMMER/BLACK.	178 ~ 180
	Screen image is turned OFF.	Press the MUTE button at least 2 seconds and cancel the image OFF mode.	40
No sound	Volume is turned down to minimum output.	Adjust the volume button.	37, 39 41, 43
	Headphones connected.	When listening using speakers, disconnect the headphones.	195
	Sound was cut off by the MUTE button. ("MUTE" is displayed on the screen.)	Press the MUTE button. ("MUTE" disappears from the screen.)	40
No navigation screen (map)	No disc inserted, or, it was inserted up side down.	Insert correctly with the printed surface facing upwards.	52
	Condensation present.	Remove the disc, wait a moment and proceed.	53
	Disc other than the included map DVD-ROM inserted.	Insert the included map DVD-ROM.	31 ~ 33

SYMPTOM	CAUSE	REMEDY	PAGE NO.
Operation via remote control is impossible	Remote control infrared transmitter not facing unit infrared receiver.	Orient the remote control infrared transmitter with the unit infrared receiver and proceed with operation.	38, 39 42, 43
	Remote control is too far from the unit.	Bring the remote control within an approx. 10 feet range from the unit and proceed with operation.	–
	Obstruction is between the remote control and the unit.	Remove the obstruction.	–
	Remote control batteries are depleted.	Replace the batteries.	47
	Remote control batteries are inserted incorrectly.	Check the +/– terminals and reinsert the batteries correctly.	47

Present location mark troubles

SYMPTOM	CAUSE	REMEDY	PAGE NO.
Geographic name display for planimetric maps differs from 3D view.	Character interspacing narrowed to prevent data cluttering on the screen. Also, there may be multiple indications of the same roads and geographic names.	Not a malfunction.	–
Present location is not properly displayed.	Display error occurred due to driving conditions or GPS satellite positioning.	Proceed with GPS satellite signal reception.	183, 184
Map does not scroll even when the vehicle moves.	Present location is not displayed.	Press the POSITION button.	–
Present location mark is not displayed.	Present location is not displayed.	Press the POSITION button.	–
GPS receiver display on the map screen remains gray.	GPS signal reception is obstructed by walls or surrounding buildings.	Move the unit to a wide open exterior area.	183, 184
	GPS satellite signal reception is obstructed by an object blocking the GPS exterior satellite.	Do not place objects on the antenna or apply paint or auto wax. Also, remove accumulated snow.	36
	Unfavorable GPS satellite reception sensitivity.	Wait until GPS satellite signal reception is stabilized.	184
Inaccurate vehicle is positioning.	Error occurred in the estimated driving speed calculated by the system using the speed pulse (too fast or too slow). This is caused by the attachment of tire chains or having transferred the unit to another vehicle.	Continue on course (about 30 minutes at 20mph) and the unit will automatically adjust.	–

TROUBLESHOOTING (2)

Selection or setting of destination/waypoints or menu items impossible.

SYMPTOM	CAUSE	REMEDY	PAGE NO.
Waypoints are not included when re-effectuating the search.	Waypoints already passed, or, the unit judged them as having been passed.	If wanting to stop again at a waypoint already passed, re-effectuate a route search.	–
Route data is not displayed.	Route search is not effectuated.	Set the destination point and effectuate the route search.	91
	Route Guidance is stopped.	Initiate **Route Guidance**.	104
After the route search is complete, route guidance symbols are not displayed even if driving near toll road entrances/exits.	Vehicle mark not going along recommended route. (Guidance symbols displayed only for vehicle mark corresponding with recommended route content.)	Drive along the recommended route.	57, 58
Automatic search re-effectuation is impossible.	Not recommended route.	Drive along the roads provided by the search or manually re-effectuate the search. However, a search for the entire route is conducted at this time.	91, 107
Waypoints are not set.	5 waypoints are already set.	Only a maximum of 5 waypoints can be set. Divide your route into several segments and effectuate a search for each respectively.	–

Voice guidance troubles

SYMPTOM	CAUSE	REMEDY	PAGE NO.
No voice guidance.	You have wandered off the recommended route.	Either go back to the recommended route or re-effectuate the route search.	91
	Voice Guidance is turned OFF.	Place a check mark ☑ before **Voice Guidance**.	119
	Route Guidance is stopped.	Initiate **Route Guidance**.	104
Guidance differs from actual road conditions.	Route guidance content may vary depending on the turning direction and the way adjoining roads are interconnected.	Continue on course following the actual traffic conditions.	–

Route search troubles

SYMPTOM	CAUSE	REMEDY	PAGE NO.
Recommended route is not displayed.	No roads available near the destination point.	Correct the destination point positioning to the thick road above the orange colored roads near the destination point. Make sure to set the waypoints and destination points on a road with careful consideration for your heading especially on roads where the two directions of traffic are displayed as separate roads.	–
	Departure and destination points in close proximity.	Lengthen distance.	–
Recommended route containing a large detour is displayed.	A route containing a wide detour may be provided whenever roads near the departure and destination points have restricted access (one-way, etc.).	Shift the departure and destination points a bit and set. Or, set a waypoint along the desired route.	–
	Because the route is made to go in the direction of the heading when the vehicle's heading (direction of the arrow) and the direction towards the destination point are opposite, the unit may provide a route containing a wide detour.	Not a malfunction.	–
Recommended route provided points far from the set departure/waypoint/ destination points.	Route guide start/waypoint/end points are far from the set points because there is no road data available near the departure/waypoint/destination points on the map.	Set the destination on a nearby road.	

TROUBLESHOOTING (3)

SYMPTOM		
Unit does not initiate playback.	No disc inserted or it is inserted up side down. Disc is dirty. Condensation present. Disc that cannot be read with this unit inserted. Included map DVD-ROM inserted. DVD video with a region sible.	33
Even if pressing the buttons, the unit only displays "⃠" with no operation possible.		
Audio and video disturbance		
No audio output from the built-in speakers.		

TROUBLESHOOTING (4)

SYMPTOM	CAUSE	REMEDY	PAGE NO.
Playback enabled even after having set parental control.	Parental control function not programmed in the DVD being played back.	Parental control impossible.	–
Initial settings and DVD menu are displayed in a foreign language.	Foreign language display set for initial settings.	Setting the “OSD” at English will display the initial settings in English. Setting the “MENU” in English will display the DVD menu in English as well.	166

WHEN THIS MESSAGE APPEARS...

The following messages appear during operation to give you hints about how to use the unit properly.

DISPLAYED MESSAGE	SITUATION	UNIT OPERATION AND PROCEDURE	PAGE NO.
“DOOR OPEN”	Disc insert cover is opened.	Close the disc insert cover completely.	53
“WRONG REGION”	Attempting to playback a DVD video with a region number other than “1” or “ALL”.	The unit’s region number is “1”. DVD videos with any region number other than “1” or “ALL” cannot be played back.	32
“PARENTAL LIMITATION”	Parental control function is enabled and the unit prohibits the playback of DVD videos.	Verify the parental control setting items in the initial settings. Playback will be enabled by changing the parental control setting items to match the parental level of the DVD video to be played back.	172
“INSERT PLAYABLE DISC”	Unreadable disc inserted.	Insert a readable disc.	31
	Included map DVD-ROM inserted.	When the unit is in DVD mode, the map disc cannot be played back.	–
“PASSWORD INCORRECT”	Inputted password is different from the registered password.	Parental control setting impossible without inputting a password. Input the correct password.	173
“SAFETY DRIVE”	Attempting to playback a DVD video while driving with the unit power source being the vehicle battery.	For safety, video images (moving pictures) cannot be viewed without setting the parking brake. Park the car in a safe area, set the parking brake and proceed with operation.	–

NAVIGATION SYSTEM DEFAULT SETTINGS LIST

Each default setting for the navigation system are as follows:

NAVIGATION

Main Display	North UP = OFF Heading Up = ON 3D View = ON
Right Display	Right Display = ON Scale (reduction) = 1/8 mile North Up = OFF Heading Up = ON Route Information Display = OFF Crossing Enlargement Display = ON
Preferred Route	Faster Route = OFF Shorter Route = OFF Optimal = ON Use Ferries = ON Check Highway = ON
Route Guidance	Auto Reroute = ON Voice Guidance = ON Route Color = Purple Simple Right & Left Turn = ON Eliminate Goal Mark = OFF Display Est. Time to Destination = ON

System Setting	Display Road Name = ON Display Saved Location = ON Display Lat., Long. = ON Unit of Distance = mi Car Mark Color = Red Map Color (Day, Night, Auto) = Auto
Record/Display Tracks	Display Tracks = ON
OTHER	Volume = set on the midpoint between "–" and "+" (30/60) AUDIO/VIDEO = ON Beep sound (key operation sound) = ON DIMMER = OFF

■ Image adjustment mode

- When in NAVI mode, the COLOR/TINT/DISPLAY adjustment items are not displayed.
- When in DVD mode, the COLOR/TINT adjustment items are not displayed.